

**2016-2017**  
**Middle and High School**  
**PROGRAM OF STUDIES**



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# Isle of Wight County Schools

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## GENERAL INFORMATION

### Purpose

The *Program of Studies* is designed to provide students and their parents with information that will assist them in making prudent educational decisions in preparing for the 21<sup>st</sup> century.

This guide includes information on graduation requirements, career planning, instructional programs and courses offered in the middle and high schools in Isle of Wight County Schools (IWCS).

It is important that students consider the course descriptions and prerequisites, keeping in mind their personal abilities and interests. Parents are asked to review the *Program of Studies* with their student. The information provided should generate helpful discussions about career opportunities, diploma types, and educational plans. Please assist school personnel as they work to help your student realize that the educational choices made today greatly affect the opportunities available in the future.

### Graduation Requirements

The Virginia Board of Education establishes graduation requirements for all students in public schools. Isle of Wight County Schools bases requirements on the Virginia Board of Education requirements. To receive a high school diploma, students must meet the minimum requirements for Advanced Studies Diploma, Standard Diploma, or Applied Studies Diploma. These diploma programs are designed to ensure that students have the skills and knowledge necessary to continue educational options after high school or to enter the work place. Through elective choices, students have the opportunity to design a course of study that best prepares them for different goals. Students are encouraged to consider both educational and career goals in selecting courses. The requirements for a student to earn a diploma shall be those in effect when that student enters the ninth grade for the first time. When students below the ninth grade successfully complete courses offered for credit in grades nine through twelve, credit is counted toward meeting the standard units required for graduation. To earn a verified unit of credit for the courses that have Standards of Learning (SOL) tests, students must pass the course and achieve a passing score on the end-of-course or an identified substitute test as approved by the Virginia Board of Education.

### Class Rank, Grade Point Average and Honor Graduates

Class rankings will be provided for students in grades nine through twelve. Grade point averages will be provided for students in grades 9-12. Grade point average and class ranking will be based upon the grades the student has earned in courses for which high school credit is awarded (including failing grades, repeated courses, summer school, and high credit courses taken prior to grade nine). Rank in class will be computed to the thousandth place truncated and no rounding imposed. For purpose of designation of student honors and for college admission information, the end of the first semester of the senior year will serve as the cutoff date for computation of

class rank. Grade Point Average (GPA) at the completion of the first semester of the senior year will be used to determine honor graduates. A student with a minimum 3.500 average is considered an honor graduate. GPAs will not be recalculated to determine honor graduate status based on second semester senior year grades.

### Verified Unit of Credit

A verified unit of credit for graduation is based on a minimum of 140 clock hours of instruction, successful completion of the requirements of the course, and a passing score on the end-of-course Standards of Learning test for that course. A state-approved substitute test may be used for specified SOL tests. (See the Substitute Tests section in Appendix A.)

### Student-Selected Test

Student-selected tests may also come from the successful completion of a career and technical education course in combination with a passing score on a Virginia Board of Education approved industry credential. Two student-selected verified credits will be awarded for passing an industry credential; and

- The student meets the career technical education concentration or specialization course requirements for program completer.
- The student earns at least two standard units of credit in the career and technical education concentration or specialization.
- The student may substitute one of these verified credits for a verified credit in either science or history/social science. (See Virginia Board of Education Approved Industry Certifications, Appendix B.)

### Sequential Electives

Sequential electives means any series of courses that are used to fulfill the elective requirements for a standard diploma in which the content increases or expands in scope and sequence as students move through the various levels of the courses. To further assist local school divisions to ensure that students comply with the requirement, the following guidance is given:

1. The requirement for students to complete two sequential electives is effective with the graduating class of 2003 as stated in 8 VAC 20-131-50 of the accrediting standards.
2. The two sequential electives may be in any discipline in as long as the courses are not specifically required for graduation in 8 VAC 20-131-50 of the accrediting standards.
3. Notwithstanding item 2 above, courses used to satisfy the one unit of credit in a fine or practical art required for the standard diploma may be used to partially satisfy this requirement.
4. Guidelines for sequential electives in career and technical education programs are available from the Department of Education.
5. A sequence that includes an exploratory course followed by an introductory course cannot be used to satisfy this

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requirement; however, an introductory course followed by another level of the same course of study can be used.

6. Students may take the focused sequence of elective courses in consecutive years or any two years of high school.

### Fine Arts/Career and Technical Education (CTE) Information

The following types of courses will meet the fine arts graduation requirement: all art courses, all band courses, all theater courses, and all chorus courses. The course taken to satisfy the fine arts requirement, may also serve as one of the two courses required to satisfy the sequential electives requirement. All career and technical education courses will meet the career technical education graduation requirement. The course taken to satisfy the fine arts or career technical education requirement may also serve as one of the two courses required to satisfy the sequential electives requirement.

### Career and Technical Education Industry Credentialing

To encourage more students to work toward a selected industry credential or state license while pursuing a high school diploma, the Path to Industry Certification: High School Industry Credentialing program was developed.

A credential is defined as:

- State-Issued Professional License, required for entry into a specific occupation as determined by a Virginia state licensing agency (Licensed Practical Nurse (LPN), Cosmetology);
- Full Industry Certification, from a recognized industry, trade, or professional association validating essential skills of a particular occupation (A+ CompTIA, Microsoft Certified Professional (MCP));
- Pathway Industry Certification, which may consist of entry-level exams as a component of a suite of exams in an industry certification program leading toward full certification (Automotive Service Excellence, (ASE), Microsoft Office Specialist (MOS)); or
- Occupational competency assessment, a national standardized assessment of skills/knowledge in a specific career and/or technical area, (NOCTI).

### Academic and Career Plan

The Board of Education's [Regulations Establishing Standards for Accrediting Public Schools in Virginia \(SOA\)](#), includes provisions for each 7<sup>th</sup> and 8<sup>th</sup> grade middle school and 9<sup>th</sup> grade high school student to have a personal learning plan and course of study that aligns with the student's academic and career goals. Virginia acknowledges the importance of career and technical education to students by recognizing industry credentialing in its diploma requirements, and through the use of Career Pathways as an integral part of the newly required Academic and Career Plan. See Appendix H, for more information about Career Pathways.

**The Academic and Career Plan must include** but is not limited to:

- A program of study for high school graduation and a postsecondary career pathway based on the student's academic and career interests.
- A review and update, if necessary, before the student enters the ninth and eleventh grades.
- The signatures of the student, student's parent or guardian and school official(s) designated by the principal.

*Note: The school shall have met its obligation for parental involvement if it makes a good faith effort to notify the parent or guardian of the responsibility for the development and approval of the Plan. The academic and career plan must be included in the student record.*

### Family Life Education (FLE)

The Family Life Education program is a comprehensive, age-appropriate, and sequential instruction in specific content areas. These areas include: growth and development; family development and emotions; safety at home and in the community; coping with feelings; sexually transmitted diseases; drug and alcohol influences on growth and development; & pregnancy and sexual relationships.

Virginia approved Standards of Learning Objectives for the Family Life Education Curriculum in 1992. Isle of Wight County School division adopted these objectives which covered grades K-12. The objectives were last revised in 2009 to align with the state Student Conduct Policy Guidelines regarding the appropriate use of electronic devices.

The more sensitive FLE program objectives are taught by trained staff members. Parents are sent a letter from the school with the dates for teaching the sex separate, sensitive lessons. Parents always have the right to call the school and ask about the curriculum lessons, review materials, and meet with the principal to fill out an opt-out form if they wish to have their child removed from the lessons.

### Emergency Health Training

Entering Ninth-Grade Class of 2016-2017 and Beyond Training in Emergency First Aid, CPR, and Use of an AED - Beginning with first-time ninth grade students in the 2016-2017 school year, requirements for the standard and advanced diplomas shall include a requirement to be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation.

### High School Test Requirements

The Virginia Board of Education has prescribed testing standards for graduation from high school.

The **Standards of Learning (SOL)** for Virginia Public Schools establish minimum expectations for what students should know and be able to do at the end of each grade or course in English, mathematics, science and history/social science. SOL tests are given in English 11 (reading and writing), Algebra I,

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Geometry, Algebra II, Earth Science, Biology, Chemistry, World History I, World History II, and Virginia and U.S. History that measure the success of students in meeting the Virginia Board of Education's expectations for learning and achievement. All items on SOL tests are reviewed by Virginia classroom teachers for accuracy and fairness and teachers also assist the state Board of Education in setting proficiency standards for the tests. Students must take all applicable end-of-course SOL tests following course instruction. Students who successfully complete a course and who achieve a passing score on an end-of-course SOL test or substitute test for that course shall be awarded a verified credit. Any student enrolled in a course that has an SOL test must take the test even if the student has met his/her verified credit requirement for that subject area.

### Testing Accommodations

Testing accommodations may be available to students with disabilities who have IEPs or 504 plans, or students with limited English proficiency. Details of testing accommodations for the Standards of Learning Program are available at each school.

### ACT Testing Accommodations

ACT is committed to serving students with documented disabilities by providing reasonable accommodations appropriate to the student's diagnosis and needs. ACT has established policies regarding documentation of an applicant's disability and the process for requesting accommodations. For details, see ACT Policy for Documentation to Support Requests for Test Accommodations on the ACT. If you currently receive accommodations in school due to a professionally diagnosed and documented disability, you **may** qualify for accommodations.

### College Board Testing Accommodations

If you have a documented disability, you **may** be eligible for accommodations on SAT Program tests. Visit our [Services for Students with Disabilities \(SSD\) site](#) for information about accommodations, the request process, and required documentation. If you've already been approved by SSD to take the PSAT/NMSQT or AP Exams with accommodations, you don't need to submit a second request. College Board approval is required for every student — even those who receive accommodations at school. The College Board's request process can take up to seven weeks, so start early.

### Credit Accommodations

Students with disabilities under IDEA or Section 504 may be eligible for credit accommodations. Credit accommodations provide alternatives for students with disabilities in earning the standard and verified credits required to graduate with a **Standard Diploma**. Credit accommodations for the **Standard Diploma** shall be determined by the student's Individualized Education Program (IEP) or Section 504 team, including the student where appropriate. The school must secure the informed written consent (**via the documents created by IWCS and VDOE**) of the parent/guardian and the student, as appropriate, to choose credit accommodations after review of the student's academic history and full disclosure of the student's options.

Students must meet the following criteria to be eligible to receive credit accommodations for the Standard Diploma:

- Student must have a current IEP or 504 plan with standards-based content goals.
- Student has a disability that precluded him or her from achieving and progressing commensurate with grade level expectations, but is learning on grade level content.
- Student needs significant instructional supports to access grade level Standards of Learning (SOL) content and to show progress.
- Based on multiple objective measures of past performance, student might not be expected to achieve the required standard and verified units of credit within the standard time frame.

### Locally Awarded Verified Credits

Isle of Wight County Schools **may** award verified credits toward a standard diploma in science and history. Isle of Wight County Schools **may** also award verified credits toward a standard diploma in reading, writing and mathematics to a student with disabilities or a student who has a 504, if the student is found eligible for credit accommodations. To be eligible to earn locally awarded verified credits, a student must:

- Pass the high school course and not pass the related Standards of Learning test;
- Take the Standards of Learning test at least twice;
- Score within a 375-399 scale score range on two tests of the Standards of Learning test; and
- Demonstrate achievement in the academic content through the appeal process described below

Through the appeal process the division will be reviewing the documentation to ensure the students have participated in a required remedial program that may include, but is not limited to, results of classroom assignments, division-wide exams, grades, and additional academic assignments as the panel deems appropriate.

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### Graduation Requirements and Diploma Options

#### Advanced Studies Diploma

The Advanced Studies diploma requires twenty-six (26) credits for students entering ninth grade in **2011-2012 and 2012-2013**. Of the twenty-six (26) credits, nine (9) must be verified credits as follows: two (2) English, two (2) math, two (2) science, two (2) social studies, and one (1) student-selected test students must have to graduate.

The Advanced Studies diploma still requires twenty-six (26) credits for students entering ninth grade in **2013-2014 and beyond, but students must also complete of one virtual course.**

#### Standard Diploma

The Standard Diploma requires twenty-two (22) credits for students entering ninth grade in **2011-2012 and 2012-2013**. Of the twenty-two (22) credits, six (6) must be verified credits as follows: two (2) English, one (1) math, one (1) science, one (1) social studies, and one (1) student-selected test students must have to graduate.

The Standard Diploma still requires twenty-two (22) credits for students entering ninth grade in **2013-2014 and beyond, but students must complete one virtual course as well as earn a board-approved career and technical education credential.**

ADVANCED STUDIES DIPLOMA	
<b>English 9, 10, 11, 12</b>	<b>4 credits</b>
<b>Mathematics</b> (Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>4 credits</b>
<b>Laboratory Science</b> (Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>4 credits</b>
<b>History and Social Sciences</b> (Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>4 credits</b>
<b>Foreign Languages</b> (Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.)	<b>3 credits</b>
<b>Health and Physical Education</b>	<b>2 credits</b>
<b>Fine Arts or Career &amp; Technical Education</b>	<b>1 credit</b>
<b>Economics and Personal Finance</b>	<b>1 credit</b>
<b>Required Courses</b>	<b>23 CREDITS</b>
<b>Elective Courses</b>	<b>3 CREDITS</b>
<b>TOTAL</b>	<b>26 CREDITS</b>

STANDARD DIPLOMA	
<b>English 9, 10, 11, 12</b>	<b>4 credits</b>
<b>Mathematics</b> (Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least two course selections from among: Algebra I; Geometry; Algebra, Functions and Data Analysis; Algebra II or other mathematics courses above the level of Algebra II. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>3 credits</b>
<b>Laboratory Science</b> (Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines from among: earth sciences, biology, chemistry or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>3 credits</b>
<b>History and Social Sciences</b> (Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography. The Virginia Board of Education may approve additional courses to satisfy this requirement.)	<b>3 credits</b>
<b>Health and Physical Education</b>	<b>2 credits</b>
<b>Foreign Languages, Fine Arts or Career &amp; Technical Education</b>	<b>2 credits</b>
<b>Economics and Personal Finance</b>	<b>1 credit</b>
<b>Required Courses</b>	<b>18 CREDITS</b>
<b>Elective Courses<sup>1</sup></b>	<b>4 CREDITS</b>
<b>TOTAL</b>	<b>22 CREDITS</b>

<sup>1</sup>Courses to satisfy this requirement must include at least two sequential electives.



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### Applied Studies Diploma

The diploma is available to students with disabilities who complete the requirements of their Individualized Education Program (IEP) and who do not meet the requirements for other diplomas.

### GED Certificate

In 2014, the GED 21<sup>st</sup> Century initiative changed the GED test. The new assessment measures high school equivalency and, in addition, career and college readiness through a new endorsement. The new test is delivered in a computer-based format only. The four tests measure the skills considered to be the major outcomes of a high school education. The tests focus on the major use of skills and concepts rather than upon recall of specific facts. The questions focus on the general abilities to analyze, evaluate, and draw conclusions. The subject areas are: Reasoning through Language Arts, Mathematical Reasoning, Science and Social Studies. To qualify for a Virginia GED Certificate, the following scores and performances must be met:

- 145-164: Pass/High School Equivalency
- 165-174: Pass/College Ready
- 175-200: Pass/College Ready + Credit

### Transfer Information

Transfer grades and credit bearing courses from other school divisions will be accepted by Isle of Wight County Schools provided the courses are compatible with local and state regulations. For first-time transfers to a Virginia Public School, the graduation requirements must be in compliance with 8VAC 20-131-60. For a student transferring into a Virginia public school for the first time in grades 9-12, the graduation requirements depend on the grade the student is transferring into and when in the school year the student is transferring. A student is considered to have transferred at the beginning of the school year if 20 or fewer hours of instruction have been completed. A student is considered to have transferred during the school year if more than 20 hours of instruction has been completed.

### Transfer Information for Active-Duty Military Families

Alternate provisions exist for students from **military** families transferring into Virginia as part of the Interstate Compact on Educational Opportunity for Military Children, under [§ 22.1-360](#) of the *Code of Virginia*. [Superintendent's Memo #091-11](#) includes information related to students in military families transferring into Virginia from another state.

- If the student transfers after meeting the sending state's testing requirements for graduation, the student is **not** required to pass any additional tests in order to graduate in Virginia. The transfer student is required, however, to complete any SOL tests associated with courses in which the student enrolls.
- If the sending state requires the student to take a test or tests but the state has not set a specified cut score or

passing score, the student must meet the same testing requirements as all other transfer students.

- If the sending state does not require students to pass end-of-course or exit tests in order to graduate, the student must meet the same testing requirements as all other transfer students.
- If the sending state administers content-based end-of-course tests required for graduation and the student achieved a passing score on any of those tests, the school division shall automatically accept the student's passing scores on the tests for the purpose of awarding verified credits in those subject areas. The test does not have to be comparable to a Virginia SOL test, so long as the test includes some content in the subject area.
- If the sending state administers a comprehensive subject area examination (e.g., exit test) as a testing requirement for graduation, the school division shall automatically accept the student's passing scores on the tests for the purpose of awarding verified credits in those subject areas. The test does not have to be comparable to a Virginia SOL test, so long as the test includes some content in the subject area. If the test includes some content from more than one subject, verified credits shall be awarded for **every** subject area covered by the test.
- If the sending state administers a national norm-referenced achievement test and that state agency has established a "cut score" or passing score for the purpose of graduation, the school division **shall** accept the test for the purpose of awarding a verified credit if the test includes some content in a subject for which a verified credit may be awarded. If that state education agency has not set a cut score for the norm-referenced test, the test **may not be used** for the purpose of awarding a verified credit or earning a high school diploma.
- If the student has taken any substitute test approved by the Virginia Board of Education for verified credit and achieved the required cut score, the school division shall accept the substitute test in lieu of the applicable SOL assessment.
- If the student has earned industry certifications, occupational competency assessments, and licensure assessments approved by the Virginia Board of Education, these shall be accepted for the student-selected verified credit.

The school division must consider each of these provisions in order to determine which SOL tests the transfer student from a military family should complete to meet the requirements for the desired diploma.

In all cases where students have earned a standard credit for coursework completed in another state but need to take the associated SOL test for verified credit, school divisions are encouraged to consider what supports should be made available to those students prior to testing. In order to aid preparation, efforts should be made to provide these students and their parent/guardian(s) sufficient notice of testing dates and information about the testing process, as well as options for remediation and retakes that may be available if needed.

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### Placement of Home Instruction Students

When a middle school student enters Isle of Wight County Public Schools from a home instruction program, the principal shall determine grade placement based on evidence of achievement provided by the parent/guardian. If further evidence is necessary, consultation with school staff or additional testing may be required.

Any student requesting credit for high school courses taken in an approved home instruction program shall provide Isle of Wight County Schools with a list of courses taken, the objectives for the courses, and evidence of achievement. If the evidence of achievement is determined to be insufficient, the principal can require the student to take an examination in each course for which he or she wishes to earn credit. These examinations shall follow the state Standards of Learning (SOL) and locally approved developed pacing/curriculum guides for each course. In addition, students will be given direction in how to prepare for each examination. Any credit granted by Isle of Wight County Schools for courses taken under home instruction shall be designated on the student's scholastic record as credit transferred from home instruction.

Any credit granted by Isle of Wight County Schools for course(s) taken will result in credit(s) being awarded for all courses passed. Courses will be recorded on the permanent record of the student as P (Passing or F (Failing). Credits awarded for home-schooled instruction will be so designed on the transcript by indicating "Home Instruction." The courses are NOT to be considered in the grade point average or class rank of the student. Grade level placement will be determined by the number of credits earned in accordance with established Isle of Wight County Public Schools School Board policy.

Once the student is enrolled and the principal has granted credit for a course, the student is now eligible to take the necessary SOL test(s) to earn verified credit for the course.

No students will be eligible for valedictorian/salutatorian honors who have not accumulated sixteen or more credits taught in classes at Smithfield High School and Windsor High School while enrolled as a full-time student.

Any student seeking a diploma from Isle of Wight County Public Schools must be officially enrolled in Isle of Wight County Public Schools as a full-time student. Students must meet all Isle of Wight County Public Schools requirements for admission and residency prior to enrollment.

Any parent wishing to appeal the principal's decision on grade placement or denial of credit may appeal the decision to the Appeal Committee. The committee consists of the Director of Elementary/Secondary Education, Director of Student Services, and the Coordinator of Instruction of the area being

appealed. This request should be in writing and sent to the Director of Elementary/Secondary Education within fifteen calendar days of the decision of the principal. The parent has the responsibility to provide written evidence of the inappropriateness of the grade placement or denial of credit. If the parent is not satisfied with the decision of the Appeal Committee, the next level of appeal is to the Superintendent. The Superintendent's decision may be appealed to the Isle of Wight County Public School Board. The decision of the Isle of Wight County School Board is final. This information can be found in School Board Policy LBD.

### Verified Credit Requirements

Students entering high school at the beginning of the 9 <sup>th</sup> grade		
Discipline Area	Standard Diploma	Advanced Diploma
English	2	2
Mathematics	1	2
Laboratory Science	1	2
History & Social Sciences	1	2
Student Selected	1	1
TOTAL:	6	9
Students transferring into a Virginia public school for the first time DURING 9 <sup>th</sup> grade OR BEGINNING of 10 <sup>th</sup> grade		
Discipline Area	Standard Diploma	Advanced Diploma
English	2	2
Mathematics	1	2
Laboratory Science	1	2
History & Social Sciences	1	2
Student Selected	1	1
TOTAL:	6	9
Students transferring into a Virginia public school for the first time DURING 10 <sup>th</sup> grade OR BEGINNING of 11 <sup>th</sup> grade		
Discipline Area	Standard Diploma	Advanced Diploma
English	1	2
Mathematics	1	1
Laboratory Science	1	1
History & Social Sciences	1	1
Student Selected		1
TOTAL:	4	6
Students transferring into a Virginia public school for the first time DURING 11 <sup>th</sup> grade OR BEGINNING of 12 <sup>th</sup> grade		
Discipline Area	Standard Diploma	Advanced Diploma
English	1	1
Student Selected	1	3
TOTAL:	2	4

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

## GENERAL INFORMATION

### Grading Scale

The chart below indicates the numerical scale approved by the School Board for Isle of Wight County Schools. Isle of Wight County School's grading scale will be used for transfer grades **(except when the previous school's grade scale is provided on the student's transcript)**.

A 93-100	B- 80-82	D 65-69
A- 90-92	C+ 77-79	F 64 and below
B+ 87-89	C 73-76	
B 83-86	C- 70-72	

### Weighted Credit

The regular, honors and advanced numeric weighting scales are indicated below. They will be used for calculating grade point average and class rank. If a course receives additional weight, it is noted on the course description in course offerings. If a course is weighted in the Isle of Wight County School's Program of Studies course offerings and the weight is indicated on a transfer student's transcript, the student will receive the course weight designated below. The student will not receive the weight, if the course did not receive additional weight when earned. Students may retake a course in order to obtain a better grade in a course, but the two courses must be the **same** (i.e. course code). The original grade shall appear on the transcript and the retaken course grade shall also appear on the transcript. The higher grade shall be figured into the GPA. Students shall receive credit only once for a single course. The credit earned for the course shall appear on the transcript under the higher course grade. **NOTE: Regular, honors and advanced courses are not the same.**

#### REGULAR

Letter Grade	Numeric Grade Range	GPA Weight
A	93-100	4.0
A-	90-92	3.7
B+	87-89	3.3
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.3
C	73-76	2.0
C-	70-72	1.7
D	65-69	1.0
F	64 and below	0.0

#### HONORS

Letter Grade	Numeric Grade Range	GPA Weight
A	93-100	4.5
A-	90-92	4.2
B+	87-89	3.8
B	83-86	3.5
B-	80-82	3.2
C+	77-79	2.8
C	73-76	2.5
C-	70-72	2.2
D	65-69	1.0
F	64 and below	0.0

#### ADVANCED

Letter Grade	Numeric Grade Range	GPA Weight
A	93-100	5.0
A-	90-92	4.7
B+	87-89	4.3
B	83-86	4.0
B-	80-82	3.7
C+	77-79	3.3
C	73-76	3.0
C-	70-72	2.7
D	65-69	1.0
F	64 and below	0.0

### Level of Difficulty and Course Placement

#### Honors

All students are encouraged to take the most rigorous curriculum available. These courses are designed to provide a challenging curriculum to motivated students with strong interests in particular subject areas. The curriculum of an honors course is accelerated in both pace and content, is rigorous and relevant, assumes a mastery of the basic skills related to the subject area and has the expectation of high-quality student work.

#### Advanced

Isle of Wight County Schools is committed to ensuring that all students maximize their potential and acquire higher-order reasoning skills as well as life-long habits of mind. To achieve that goal, Isle of Wight County Schools offers several advanced academic programs to students. Students may choose to enroll in college-level courses through Advanced Placement (AP) The Governor's School of Arts (GSA) and The Governor's School of Science and Technology (GSST).

Each of the advanced-level programs is designed to provide a challenging curriculum to motivated students. The courses are taught at an accelerated pace and offer enhanced content. Students will receive more homework and reading in these courses. In addition, a focus will be placed on creativity, critical thinking, communication and collaboration. The advanced academic courses provide students with a stronger foundation for post-secondary education.

## GENERAL INFORMATION

### Special Education Program

In compliance with federal and state regulations and local procedures for managing the special education process, the Isle of Wight County School Division offers a comprehensive program of services for students with disabilities, ages 2 through 21 inclusive. This program includes services in the schools for the following special education categories identified in federal and state regulations: Autism, Deaf-Blindness, Developmental: age 5-6, Emotional Disability, Hearing Impairment/Deaf, Intellectual Disability, Learning Disability, Multiple Disabilities, Orthopedic Impairment, Other Health Impairment, Speech or Language Impairment, Traumatic Brain Injury, and Visual Impairment including blindness. Related services are provided if deemed appropriate by the Individualized Education Program (IEP) Committee. Vocational evaluations, training opportunities and post-secondary transition are provided beginning at age 14 if determined to be necessary by the IEP Committee.

The educational program for each student with a disability is determined by an Individualized Education Program (IEP). It is designed by the school-based IEP team that includes parents, educators, and related service providers. The IEP team develops goals and objectives/benchmarks to assist a student with a disability in accessing the general education curriculum or an alternate curriculum using special education services and supports at the frequency and duration deemed necessary.

### Southeastern Cooperative Educational Program (SECEP)

The Southeastern Cooperative Educational Program (SECEP) is a regional, educational consortium that includes numerous programs. In addition to the programs provided for students without disabilities, SECEP offers programming for students with disabilities in the areas of Autism, Emotional Disability, Intellectual Disability (with accompanying significant behavioral deficits), and Multiple Disabilities, whose needs cannot be met in less restrictive settings. All screenings, referrals, evaluations, initial Individualized Education Programs (IEPs), and recommendations for placement are made by the Isle of Wight County School Division. Revisions are made to the initial placement IEP by the SECEP staff with parent and division input.

### English-as-a-Second Language Program

The English-as-a-Second Language (ESL) program helps limited-English-proficient students achieve proficiency in English so they can make satisfactory achievement in the regular school program. Instruction is provided to help students succeed in the English Standards of Learning and other content areas. Emphasis is placed on the development of communication skills in English. Listening, speaking, reading, and writing are emphasized. All ESL students must take a language placement test when they initially enroll. Additionally, ESL students must take a federally-mandated English language proficiency test each spring. Required verified credits for graduation vary depending on the year in which the student first enters public high school in Virginia.

Students and their parents should consult the guidance department for specific information.

### UpLift Academy (Grades 6 – 12)

**The UPLIFT Concept:** *A 21<sup>st</sup> Century focused Learning Model for Learners with Personalized Learning Environments and Needs*

UPLIFT Academy is a multi-faceted, alternative educational program aimed at providing students personalized learning experiences through blended instruction, behavioral awareness, and employment and community service opportunities to foster successful transition to continual pursuit of educational and lifelong goals.

### Paul D. Camp Community College

Isle of Wight County Schools has an agreement for postsecondary degree attainment with Paul D. Camp Community College. Students can work on the completion of an associate's degree from the community college while working to fulfill the requirements of a high school diploma. The agreement specifies how credit will be awarded. Currently, Isle of Wight County Schools is offering the following core dual enrollment courses: DE English 12, DE Probability and Statistics, DE Math Analysis/Pre-Calculus, and DE Calculus.

## GENERAL INFORMATION

### Virginia Department of Education Graduation (Diploma) Seals of Achievement

Students meeting specific requirements for graduation and demonstrating exemplary performance may receive diploma seals for recognition. Virginia Department of Education (VDOE) makes available to local school divisions the following seals:

Name	Specific Requirements
<b>Governor's Seal</b>	Awarded to students who complete the requirements for an Advanced Studies Diploma with an <b>“average grade of 83”</b> or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.
<b>Board of Education Seal</b>	Awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an <b>“average grade of 93”</b> beginning with the ninth-grade class of 2006-2007 and beyond.
<b>Board of Education's Career &amp; Technical Education Seal</b>	<p>Awarded to students who:</p> <ul style="list-style-type: none"> <li>• earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain an <b>“average grade of 83”</b> or better in each course</li> <li>• OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association</li> <li>• OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia.</li> </ul> <p>The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.</p>
<b>Board of Education's Advanced Mathematics &amp; Technology Seal</b>	<p>Awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with an <b>“average grade of 83”</b> or better in each course; and either</p> <ul style="list-style-type: none"> <li>• pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association</li> <li>• OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia</li> <li>• OR pass an examination approved by the board that confers college-level credit in a technology or computer science area.</li> </ul> <p>The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.</p>
<b>Board of Education's Excellence in Civics Education Seal</b>	<p>Awarded to students who meet each of the following four criteria:</p> <ul style="list-style-type: none"> <li>• Satisfy the requirement to earn a Modified Standard Diploma, a Standard Diploma or an Advanced Studies Diploma</li> <li>• Complete Virginia &amp; United States History and Virginia &amp; United States Government courses with an <b>“average grade of 83”</b> or higher in each course</li> <li>• Complete 50 hours of voluntary participation in community service or extracurricular activities, such as volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; participating in Boy Scouts, Girl Scouts or similar youth organizations; participating in Junior Reserve Officer Training Corps (JROTC); participating in political campaigns, government internships, Boys State, Girls State or Model General Assembly; and participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement. See IWCS Voluntary Community Service Document, Appendix C.</li> <li>• Have good attendance and no disciplinary infractions as determined by local school board policies.</li> </ul>
<b>Board of Education's Seal of Biliteracy</b>	<p>Awarded to students who earn either a Board of Education-approved diploma: “foreign language” means a language other than English, and includes American Sign Language.</p> <ul style="list-style-type: none"> <li>• Passes all required End-of-Course Assessments in English reading and writing at the proficient or higher levels</li> <li>• Proficient at the intermediate-mid level or higher in one or more languages other than English, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction.</li> </ul>

# MIDDLE SCHOOL CURRICULUM

## General Information

The information in this guide is designed to assist students and parents with the selection of courses for the sixth, seventh, and eighth grades and to provide information for long range planning. Students and parents are encouraged to read the Program of Studies and talk with school guidance counselors and teachers. Course choices in the sixth, seventh, and eighth grades may influence decisions in the high school program.

Isle of Wight County has two middle schools. Georgie D. Tyler Middle School has three grade levels 6 – 8. Smithfield Middle School has two grade levels 7 and 8. Middle school students are characterized by a need to explore a variety of interests. The flexible block schedule allows a wide variety of academic opportunities as well as programs and non-academic activities that support student growth and development. Each student is assigned to a grade level team of teachers. The team operates like a small school within a school. The students share a small number of teachers who provide academic instruction. The students will be enrolled in English, math, science, social studies, health/physical education, and electives. The electives offered at the middle school are exploratory courses that provide students with a variety of experiences. These courses are offered in varying lengths of instructional time. Eight grade students may have the opportunity to participate in high school credit bearing courses.

## Academic Year

The regular academic year is at least 180 days, divided into four nine-week periods. Core courses are generally one year in length. Exploratory/elective courses are offered at varied lengths of time (9 weeks, 18 weeks and 36 weeks). Students receive a final grade at the end of the course.

## Courses

Core courses include English, mathematics, science and social studies. These courses are normally taught all year or on A/B Block schedule. Elective courses include art, music, exploratory foreign languages, technology education, and health/physical education. Elective courses for high school credit include foreign languages and Algebra I.

## Registration

At registration time, students will be given information concerning course selection for the coming year. The courses listed in this document will be offered, if there is sufficient enrollment and available staff. Grade levels listed for exploratory/elective courses indicate the grade(s) in which the course may be taken.

## Grading Procedures

### Middle School Courses

Middle school teachers are expected to provide a final letter grade in academic subjects and exploratories taught during the nine (9) weeks grading period. Middle school teachers are expected to have at least thirteen grades (three grades for tests/projects/essays, five grades for quizzes/labs/presentations, and five classwork/learning

activities/reflections) in PowerSchool for each student in every course taught during the nine (9) weeks grading period.

Grades will be calculated based on the categories and weighted values below:

### Category Weighted Value

- Test/Projects/Essays-----33.3%
- Quizzes/Labs/Presentations-----33.3%
- Classwork/Learning Activities/Reflections-----33.3%
- Students will be required to complete a culminating activity for each course.

Semester and final year grades shall be given in middle school. The two nine (9) weeks grades shall be averaged together to determine the final grade in a semester course. The four nine week's grades shall be averaged to determine the final grade for yearlong course. Letter grades shall be used to record student achievement on report cards. Letter grades shall be used to identify honor roll students.

### High School Courses

State standards require that when students below the ninth grade successfully complete courses offered for credit in grades 9 through 12, credit shall be counted toward meeting the standard units required for graduation provided the courses are equivalent in content and academic rigor as those courses offered at the secondary level. Therefore, these high school credit bearing courses will use the categories and weighted values established below:

### Category Weighted Value

- Test/Culminating Project-----45%
- Classwork/Lab/Quiz/Essay/Project--25%
- Homework-----10%
- Exam-----20%

## Purging/Expunging Grades

High school credit bearing courses taken in middle school will count toward meeting the credits required for graduation. Based on School Board IKEB-E, High School Credit Waiver Request, see Appendix G, the grades of middle school students who take credit bearing courses can be purged if certain procedures are followed.

- The parent/guardian of a middle school student taking a high school credit bearing course(s) may request that the grade for such course or courses be purged from the student's transcript and that the student not earn high school credit for the course
- A written request via the form, IKEB-E, for purging/expunging of grades pursuant to this regulation must be presented to the middle school building principal **on or before July 15 of the school year immediately following completion of the course.**
- Once the middle school principal receives a request for the purging of such grade and credit, the middle school will alter the student's grade in PowerSchool, so the course, grade and credit are not reflected and

## MIDDLE SCHOOL CURRICULUM

a note is added to the historical grade indicating the reason. The completed form should be retained in the student's cumulative file.

- A student dropping a course pursuant to this exhibit is still required to meet the prescribed graduation requirements set forth in policy; where a course has been dropped, a course fulfilling the graduation requirement must be successfully completed at the middle school or high school level.
- A student who has a grade purged from his/her record, but passes the related end-of-course SOL test, will not be required to retake the SOL test to earn verified credit if he/she successfully repeats the related course.

### Athletic Program

Eight graders are eligible to participate in interscholastic competition, practices or travel. Students entering the eighth grade for their first semester are automatically eligible for junior varsity athletic activities only. They must be enrolled in four core courses (i.e., math, English, science and social studies) and at least one exploratory course. To remain eligible for the second semester the student must pass three of four core courses and have an *overall* grade point average of 2.00 or better. All eligible students must also comply with the attendance policy and be in good standing thus meeting the bona fide student rule of the VHSL. For more information, please see the high school curriculum section **Athletic/Activity Participation**.

### Test Requirements

The Virginia Board of Education has prescribed testing standards for middle school.

The **Standards of Learning (SOL)** for Virginia Public Schools establish minimum expectations for what students should know and be able to do at the end of certain grades in English, mathematics, science, and history/social science. SOL tests are given in English 6 (reading), Math 6, English 7 (reading), Math 7, English 8 (reading and writing), Math 8, Physical Science, and Civics/Economics that measure the success of students in meeting the Virginia Board of Education's expectations for learning and achievement. All items on SOL tests are reviewed by Virginia classroom teachers for accuracy and fairness and teachers also assist the state Board of Education in setting proficiency standards for the tests. Students must take all applicable SOL tests following course instruction.

### Testing Accommodations

Testing accommodations may be available to students with disabilities who have IEPs or 504 plans, or students with limited English proficiency. Details of testing accommodations for the Standards of Learning Program are available at each middle school.

### Promotion Standards

Promotion is based on student achievement and attendance in school. Each student is expected to achieve grade level and content area skills and knowledge. If expectations for student

achievement are not being met by a student in the middle school, a conference will be held with the parent or guardian. Notice of promotion and retention will be given to the parent or guardian on the final report card at the end of the school year.

In addition, a student must meet attendance requirements to be considered for promotion. [See School Board policy JED] A student's parent or guardian may appeal a retention decision based on a violation of the attendance policy. Appeals are made to the principal as outlined in JED-R.

The final decision regarding promotion, retention, and the use of other instructional interventions designed to promote student learning, rests with the principal. All decisions will be based on what is in the best interest of each child and in accordance with Regulations Establishing Standards for Accrediting Public Schools in Virginia.

### Promotion Requirements for Grades 6-8 (JECC-R)

A student in grades six through eight who meets attendance guidelines and who is recommended by the teacher will be promoted to the next grade if two of the following criteria are met:

- Earns a passing grade in the four (4) core academic areas of English, Mathematics, Science, and History.
- Passes the Standards of Learning test for English (RLR and writing) and Mathematics.
- Passes all but one of the required SOL tests.

A student who does not pass the English or Mathematics class or the English or Mathematics Standards of Learning tests will be required to attend summer school as a prerequisite for being considered for promotion. Performance in summer school will be a factor in the consideration for promotion.

Other factors may be considered at the principal's discretion.

A student in grades 6-8 who does not meet the criteria will be required to participate in interventions designated by the principal and Student Assistance Team.

Interventions may include:

- Summer school
- Before and after school tutoring
- Remediation during regular instructional day
- Retention in grade
- Next grade placement with remediation indicated

### Homebound Services

The School Board shall maintain a program of homebound instruction for students who are confined at home or in a health care facility for periods that would prevent normal school attendance based upon certification of need by a licensed physician, physician assistant, nurse practitioner, or clinical psychologist. Credit for the work shall be awarded when it is done under the supervision of a licensed teacher, a person eligible to hold a Virginia license, or other appropriately licensed professional employed by the School Board, and there is evidence that the instructional time

## MIDDLE SCHOOL CURRICULUM

requirements or alternative means of awarding credit adopted by the School Board have been met. The principal is responsible for the provisions of homebound Instruction – securing the homebound instructor, screening assignments, gathering work from the homebound instructor, and securing approval for providing homebound instruction from the homebound instruction coordinator.

The following procedures should be followed to implement policy IGBG, Homebound Instruction:

1. Parents who want homebound instruction for a child should have a Homebound Instruction Medical Certification of Need (IGBG-E1) and an original prescription completed by a licensed physician, psychiatrist, or clinical psychologist. The forms must be completed by a professional authorized to treat the illness for which homebound services are being requested.
2. The principal employs a certified teacher when a Homebound Instruction Medical Certification of Need and an original prescription are returned with a recommendation for homebound instruction, and the request has been approved by the homebound instruction coordinator. A copy of the Homebound Instruction Medical Certification of Need and an original prescription is forwarded to the homebound instruction coordinator.
3. The principal submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the homebound instruction coordinator two (2) days before the payroll due date.
4. The homebound instruction coordinator submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the finance department by the payroll due date.
5. Students on homebound instruction are considered present in school for the period of approved homebound instruction.
6. Extensions of homebound service require the completion and approval of the Homebound Instruction Medical Certification of Need Reauthorization Form (IGBG-E3).
7. Receipt of Homebound Instruction does not guarantee passing of courses, promotion to the next grade, or on-time graduation.

### Summer Program

The middle school summer program is designed for students in grades six, seven, and eight, who have not met the middle school promotion standard during the regular school year. The IWCS promotion standard requires that students are promoted to the next grade on the basis of earning passing final grades in the core subjects of English, mathematics, science and social studies. If a student needs to successfully repeat one or two of the required courses to be eligible for promotion to the next grade level, the student should attend summer school. Students who have not met promotion standards or have not passed a state assessment may be recommended by the principal to attend summer school as an intervention to help improve academic achievement. In addition, remedial summer school programs are available to provide extra support to qualifying students. All middle school summer programs are subject to sufficient enrollment and availability of certified teaching staff.

### Gifted Education

Intellectually gifted students attending middle schools have pull out and push in gifted instruction through the collaborative work of cluster teachers and the gifted resource teacher. Either option allows gifted students to work to their potential through curricular opportunities emphasizing differentiated curriculum and instruction and the use of strategies designed especially to raise the level of challenge. The resource-cluster program promotes optimum understanding of the needs of gifted children for all school staff. Gifted students interact with their teachers, classmates, and gifted peers in a heterogeneous grouping, while attaining benefits through the modification of content, process, product, and learning environment.

# MIDDLE SCHOOL CURRICULUM

## General Information

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The regular academic year is at least 180 days, divided into four nine-week periods. Core courses are generally one year in length. Exploratory/elective courses are offered at varied lengths of time (9 weeks, 18 weeks and 36 weeks). Students receive a final grade at the end of the course.

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## MIDDLE SCHOOL CURRICULUM

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- A student who has a grade purged from his/her record, but passes the related end-of-course SOL test, will not be required to retake the SOL test to earn verified credit if he/she successfully repeats the related course.

### Athletic Program

Eight graders are eligible to participate in interscholastic competition, practices or travel. Students entering the eighth grade for their first semester are automatically eligible for junior varsity athletic activities only. They must be enrolled in four core courses (i.e., math, English, science and social studies) and at least one exploratory course. To remain eligible for the second semester the student must pass three of four core courses and have an *overall* grade point average of 2.00 or better. All eligible students must also comply with the attendance policy and be in good standing thus meeting the bona fide student rule of the VHSL. For more information, please see the high school curriculum section **Athletic/Activity Participation**.

### Test Requirements

The Virginia Board of Education has prescribed testing standards for middle school.

The **Standards of Learning (SOL)** for Virginia Public Schools establish minimum expectations for what students should know and be able to do at the end of certain grades in English, mathematics, science, and history/social science. SOL tests are given in English 6 (reading), Math 6, English 7 (reading), Math 7, English 8 (reading and writing), Math 8, Physical Science, and Civics/Economics that measure the success of students in meeting the Virginia Board of Education's expectations for learning and achievement. All items on SOL tests are reviewed by Virginia classroom teachers for accuracy and fairness and teachers also assist the state Board of Education in setting proficiency standards for the tests. Students must take all applicable SOL tests following course instruction.

### Testing Accommodations

Testing accommodations may be available to students with disabilities who have IEPs or 504 plans, or students with limited English proficiency. Details of testing accommodations for the Standards of Learning Program are available at each middle school.

### Promotion Standards

Promotion is based on student achievement and attendance in school. Each student is expected to achieve grade level and content area skills and knowledge. If expectations for student

achievement are not being met by a student in the middle school, a conference will be held with the parent or guardian. Notice of promotion and retention will be given to the parent or guardian on the final report card at the end of the school year.

In addition, a student must meet attendance requirements to be considered for promotion. [See School Board policy JED] A student's parent or guardian may appeal a retention decision based on a violation of the attendance policy. Appeals are made to the principal as outlined in JED-R.

The final decision regarding promotion, retention, and the use of other instructional interventions designed to promote student learning, rests with the principal. All decisions will be based on what is in the best interest of each child and in accordance with Regulations Establishing Standards for Accrediting Public Schools in Virginia.

### Promotion Requirements for Grades 6-8 (JECC-R)

A student in grades six through eight who meets attendance guidelines and who is recommended by the teacher will be promoted to the next grade if two of the following criteria are met:

- Earns a passing grade in the four (4) core academic areas of English, Mathematics, Science, and History.
- Passes the Standards of Learning test for English (RLR and writing) and Mathematics.
- Passes all but one of the required SOL tests.

A student who does not pass the English or Mathematics class or the English or Mathematics Standards of Learning tests will be required to attend summer school as a prerequisite for being considered for promotion. Performance in summer school will be a factor in the consideration for promotion.

Other factors may be considered at the principal's discretion.

A student in grades 6-8 who does not meet the criteria will be required to participate in interventions designated by the principal and Student Assistance Team.

Interventions may include:

- Summer school
- Before and after school tutoring
- Remediation during regular instructional day
- Retention in grade
- Next grade placement with remediation indicated

### Homebound Services

The School Board shall maintain a program of homebound instruction for students who are confined at home or in a health care facility for periods that would prevent normal school attendance based upon certification of need by a licensed physician, physician assistant, nurse practitioner, or clinical psychologist. Credit for the work shall be awarded when it is done under the supervision of a licensed teacher, a person eligible to hold a Virginia license, or other appropriately licensed professional employed by the School Board, and there is evidence that the instructional time

## MIDDLE SCHOOL CURRICULUM

requirements or alternative means of awarding credit adopted by the School Board have been met. The principal is responsible for the provisions of homebound Instruction – securing the homebound instructor, screening assignments, gathering work from the homebound instructor, and securing approval for providing homebound instruction from the homebound instruction coordinator.

The following procedures should be followed to implement policy IGBG, Homebound Instruction:

1. Parents who want homebound instruction for a child should have a Homebound Instruction Medical Certification of Need (IGBG-E1) and an original prescription completed by a licensed physician, psychiatrist, or clinical psychologist. The forms must be completed by a professional authorized to treat the illness for which homebound services are being requested.
2. The principal employs a certified teacher when a Homebound Instruction Medical Certification of Need and an original prescription are returned with a recommendation for homebound instruction, and the request has been approved by the homebound instruction coordinator. A copy of the Homebound Instruction Medical Certification of Need and an original prescription is forwarded to the homebound instruction coordinator.
3. The principal submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the homebound instruction coordinator two (2) days before the payroll due date.
4. The homebound instruction coordinator submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the finance department by the payroll due date.
5. Students on homebound instruction are considered present in school for the period of approved homebound instruction.
6. Extensions of homebound service require the completion and approval of the Homebound Instruction Medical Certification of Need Reauthorization Form (IGBG-E3).
7. Receipt of Homebound Instruction does not guarantee passing of courses, promotion to the next grade, or on-time graduation.

### Summer Program

The middle school summer program is designed for students in grades six, seven, and eight, who have not met the middle school promotion standard during the regular school year. The IWCS promotion standard requires that students are promoted to the next grade on the basis of earning passing final grades in the core subjects of English, mathematics, science and social studies. If a student needs to successfully repeat one or two of the required courses to be eligible for promotion to the next grade level, the student should attend summer school. Students who have not met promotion standards or have not passed a state assessment may be recommended by the principal to attend summer school as an intervention to help improve academic achievement. In addition, remedial summer school programs are available to provide extra support to qualifying students. All middle school summer programs are subject to sufficient enrollment and availability of certified teaching staff.

### Gifted Education

Intellectually gifted students attending middle schools have pull out and push in gifted instruction through the collaborative work of cluster teachers and the gifted resource teacher. Either option allows gifted students to work to their potential through curricular opportunities emphasizing differentiated curriculum and instruction and the use of strategies designed especially to raise the level of challenge. The resource-cluster program promotes optimum understanding of the needs of gifted children for all school staff. Gifted students interact with their teachers, classmates, and gifted peers in a heterogeneous grouping, while attaining benefits through the modification of content, process, product, and learning environment.

## MIDDLE SCHOOL COURSES

### ENGLISH

**Course Name:** English 6

**Local Code:** 110906

**Grade Level:** 6

**Course Description:**

In this course the student will read both fiction and nonfiction for comprehension and appreciation. Textbooks and novels will be used to support learning in other disciplines and to develop critical reading and reasoning skills. Writing will also be a major focus. The student will plan, draft, revise, and edit narratives, descriptions, and explanations, focusing on composing, style, sentence formation, usage, and mechanics.

**Course Name:** English 7

**Local Code:** 111007

**Grade Level:** 7

**Course Description:**

In this course the student will continue to develop and refine reading skills through the use of fiction, nonfiction, and including poetry. The student will also continue to develop writing skills with emphasis on persuasive and technical writing. Proficiency in communication, both verbal and nonverbal, will be further developed and expanded.

**Course Name:** English 8

**Local Code:** 112008

**Grade Level:** 8

**Course Description:**

In this course the student will learn the characteristics of various types of literature and apply that knowledge in analyzing, discussing, and writing about literature. The student will continue to develop critical reading skills and writing skills, both of which will be applied in the study of other subjects.

**Course Name:** Language Arts K-8

**Local Code:** 51037S

**Grade Level:** 6, 7, and 8

**Course Description:**

This individualized instructional course for identified students with disabilities emphasizes basic reading, listening, speaking, spelling, vocabulary, grammar, and writing as outlined on the student's IEP. The course may be continued.

### MATHEMATICS

**Course Name:** Math 6

**Local Code:** 311006

**Grade Level:** 6

**Course Description:**

The course emphasizes rational numbers. Students will use ratios to compare data sets; recognize decimals, fractions, and percents as ratios; solve single-step and multistep problems, using rational numbers; and gain a foundation

in the understanding of integers. Students will solve linear equations and use algebraic terminology. Students will solve problems involving area, perimeter, and surface area, work with  $\pi$  (pi), and focus on the relationships among the properties of quadrilaterals. In addition, students will focus on applications of probability and statistics.

**Course Name:** Math 7

**Local Code:** 311107

**Grade Level:** 7

**Course Description:**

The course emphasizes the foundations of algebra. Topics in grade seven include proportional reasoning, integer computation, solving two-step linear equations, and recognizing different representations for relationships. Students will apply the properties of real numbers in solving equations, solve inequalities, and use data analysis techniques to make inferences, conjectures, and predictions. After completing this course, screening process will be used to determine placement into Math 8 or Algebra I.

**Course Name:** Math 8

**Local Code:** 311208

**Grade Level:** 8

**Course Description:**

The course provides students additional instruction and time to acquire the concepts and skills necessary for success in Algebra I. Students will gain proficiency in computation with rational numbers and will use proportions to solve a variety of problems. New concepts include solving multistep equations and inequalities, graphing linear equations, visualizing three-dimensional shapes represented in two-dimensional drawings, and applying transformations to geometric shapes in the coordinate plane. Students will verify and apply the Pythagorean Theorem and represent relations and functions, using tables, graphs, and rules.

**Course Name:** Mathematics K-8

**Local Code:** 51039S

**Grade Level:** 6, 7, and 8

**Course Description:**

This individualized instructional course for identified students with disabilities continues those mathematics reasoning and calculations skills introduced/mastered in elementary school as outlined on the student's IEP. This course may be continued.

**Course Name:** Algebra I

**Local Code:** 31300G

**Course Description:**

The course requires students to use algebra as a tool for representing and solving a variety of practical problems. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze behaviors of functions. Graphing calculators, computers,

## MIDDLE SCHOOL COURSES

and other appropriate technology tools will be used to assist in teaching and learning. Graphing utilities enhance the understanding of functions; they provide a powerful tool for solving and verifying solutions to equations and inequalities. Throughout the course, students will be encouraged to engage in discourse about mathematics with teachers and other students, use the language and symbols of mathematics in representations and communication, discuss problems and problem solving, and develop confidence in themselves as mathematics students. Instruction will focus on sequential development of concepts and skills using concrete materials to assist in the transition from the arithmetic to the symbolic. **High school credit is awarded and the grade becomes a part of the high school Grade Point Average (GPA).**

### SCIENCE

**Course Name: Science 6**

**Local Code: 410506**

**Grade Level: 6**

**Course Description:**

The course integrates scientific investigation, reasoning, and logic to develop student understanding of the interrelationship of force, motion, and energy; the description, physical properties, and basic structure of matter; the health of ecosystems and the abiotic factors of a watershed; the interrelationship and interaction of Earth systems with the solar system; and the importance of Earth's natural resources, and resource management in terms of costs, benefits, and conservation policies.

**Course Name: Life Science**

**Local Code: 411507**

**Grade Level: 7**

**Course Description:**

The living world is emphasized in this course by studying change, life cycles, patterns, and relationships. Students gain an understanding of these principles through the following: a study of organization and classification of organisms; the relationships among organisms, populations, communities, and ecosystems, and change due to the transmission of genetic information from generation to generation. Students will study data analysis, manipulation of variables in experimentation, and identify sources of experimental error.

**Course Name: Physical Science**

**Local Code: 412508**

**Grade Level: 8**

**Course Description:**

The course emphasizes the nature and structure of matter and the characteristics of energy. Areas of study will include the following: the periodic table, physical and chemical changes, nuclear reactions, temperature and heat, sound, light, electricity, magnetism, work, force, and motion. Research, experimentation, and the manipulation of variables to validate conclusions will be included.

Students will share their work through written and oral presentations.

**Course Name: Science K-8**

**Local Code: 532395**

**Grade Level: 6, 7, and 8**

**Course Description:**

This individualized instructional course for identified students with disabilities introduces/enhances practical science knowledge using a hands-on approach as outlined on the student's IEP. This course may be continued.

### SOCIAL STUDIES

**Course Name: U. S. History I**

**Local Code: 235306**

**Grade Level: 6**

**Course Description:**

The course covers United States history up to the year of 1865. Areas of study include change and continuity in our history and the study of historical documents and speeches that comprise the foundation of American ideals and institutions. Simulations, class debates, projects, primary sources will be the cornerstones of the class. Map and globe skills are used to interpret information, and think in historical terms.

**Course Name: U. S. History II**

**Local Code: 235407**

**Grade Level: 7**

**Course Description:**

The course covers United States history from 1865 to present day. The end of the Reconstruction Period to the present day is emphasized. Primary Sources, discussion, debate, historical analysis, and persuasive writing are used to study historical events.

**Course Name: Civics and Economics**

**Local Code: 235708**

**Grade Level: 8**

**Course Description:**

This course examines the structure and functions of government at national, state, and local levels. The study of historical documents, such as the Declaration of Independence, the Articles of Confederation, and the Virginia Statute of Religious Freedom are used to provide an understanding of the law, a sense of civic duty, and patriotism. Emphasis is on the study of the United States and Virginia constitutions. A basic knowledge of the American economic system is developed by studying its structure and free market concepts.

**Course Name: Social Studies K-8**

**Local Code: 544395**

**Grade Level: 6, 7, and 8**

**Course Description:**

This individualized instructional course for identified students with disabilities emphasizes the major content

## MIDDLE SCHOOL COURSES

components of history/social science and stresses citizenship and awareness needed for adult functioning as outlined on the student's IEP. This course may be continued.

### HEALTH/PHYSICAL EDUCATION

**Course Name: Health and Physical Education**

**Local Code: 711006**

**Grade Level: 6**

**Local Code: 712007**

**Grade Level: 7**

**Local Code: 720008**

**Grade Level: 8**

**Course Description:**

In this course students will develop more sophistication in understanding health issues and practicing health skills. They will apply physical, emotional, social, and environmental health skills and strategies to improve or maintain personal and family health. Students will begin to understand adolescent health issues and concerns and the relationship between choices and consequences. They will be taught how to be a positive role model and the impact of positive and negative peer pressure. Students will demonstrate injury-prevention behaviors at school and in their community. Students will experience a variety of activities to learn and apply movement concepts to understand how and why the body moves. Activities are used to build movement competence and confidence through acquisition, performance, and refinement of skills. Students will explain the importance of and exhibit the ability to be safe in a variety of movement activities. They will apply knowledge of types of joints to explain a variety of movements. Students will explain the connection between energy balance and nutrition guidelines, meal planning, and heart rate. They will apply skills of measurement, analysis, goal setting, problem solving, and decision making to create and implement a basic personal fitness plan to improve or maintain the health-related components of fitness. Students will demonstrate and apply skills of communication, conflict resolution, appreciation of the contribution of others, and cooperation to achieve individual and group goals in the physical activity setting. Students will identify and apply skills of focus and self-control, making connections, critical and creative thinking, taking on challenges, and self-directed engaged learning.

### WORLD LANGUAGES

**Course Name: Foreign Language Exploratory (FLEX)**

**Local Code: 570006**

**Grade Level: 6**

**Course Description:**

This nine-week foreign language introductory course investigates human languages and how they have developed to meet changing cultural needs. A rationale for studying foreign languages is explored along with career opportunities related to fluency in more than one language. Students will be introduced to the development of English and the influences (history, geography, and cultural) that contributed to the language we speak today. Families of languages will also be taught so that students will see how they are interrelated. Comparisons of words will help students prepare for exploring specific languages in 7<sup>th</sup> grade.

**Course Name: Foreign Language Exploratory (FLEX)**

**Local Code: 570007**

**Grade Level: 7**

**Course Description:**

In this course the student will explore two or more of the following languages: Latin, German, Japanese, French, and Spanish. Students learn basic greetings, numbers, days, months, family, and other essential vocabulary, along with alphabetical and phonetic systems of these languages. Students also study the culture of countries in which each language is spoken, and the historical/geographical influences that shaped them.

**Course Name: Latin I**

**Local Code: 53100G**

**Prerequisite: Earned an A or B in English 7**

**Course Description:**

The course focuses on the primary elements of grammar, analysis and interpretation of syntax in a given sentence, and reading aloud with standard classical pronunciation and accent. Major geographical, mythological, and cultural derivative study begins. **Students successfully completing this course will be awarded high school credit and the grade becomes a part of the high school Grade Point Average (GPA).**

**Course Name: Spanish I**

**Local Code: 55100G**

**Prerequisite: Earned an A or B in English 7**

**Course Description:**

The course incorporates an understanding of words and expressions in varied contexts, the use of acceptable Spanish in daily classroom communications, association of written with spoken forms of the language, and written responses to questions and directed statements. The geography of Spanish-speaking countries and comparative lifestyles are also studied. **Students successfully completing this course will be awarded high school credit**

## MIDDLE SCHOOL COURSES

and the grade becomes a part of the high school Grade Point Average (GPA).

**Course Name: French I**

**Local Code: 51100G**

**Prerequisite: Earned an A or B in English 7**

**Course Description:**

The course incorporates understanding words and expressions in varied contexts, the use of acceptable French in daily classroom communications, association of written with spoken forms of the language, and written responses to questions and directed statements. The geography of French-speaking countries and comparative lifestyles are also studied. **Students successfully completing this course will be awarded high school credit and the grade becomes a part of the high school Grade Point Average (GPA).**

### FINE ARTS

**Course Name: Art**

**Local Code: 910306**

**Grade Level: 6**

**Course Description:**

The focus of this nine-week art course is exploration. Students will be introduced to multiple art concepts and experiences using a variety of art media in both two-dimensional and three-dimensional works. Emphasis will be on the elements and principles of design. Students will distinguish various art styles including the influence of the American culture on art. The role of art and artists in society will be examined. Critical analyses and aesthetics, and using appropriate art vocabulary, will be incorporated into studio work.

**Course Name: Art**

**Local Code: 910507**

**Grade Level: 7**

**Course Description:**

This course will continue to develop and apply the elements and principles of design. Both two-dimensional and three-dimensional design will be explored with emphasis on realistic representation. The student will utilize the design processes artists use to create a final art product. Students will develop technical skills, inquiry skills and art vocabulary, which will enable them to communicate ideas both visually and verbally. Various art careers and use of technology will also be investigated. The use of simple and linear perspectives will be explored during the course of study. Students will compare and contrast art styles using personal responses and/or formal analysis based on the elements and principles of design.

**Course Name: Art Exploratory**

**Local Code: 910608**

**Grade Level: 8**

**Course Description:**

This course will further expand and develop the use of the elements of art and the principles of design in this 18-week course. Students will develop skills needed for rendering realistic representation as well as exploring the nature of expressionism and abstraction. Perspective, color theory, and technology are among the concepts to be explored. Art production will include both two-dimensional and three-dimensional design. Students will critique personal works and the works of others using appropriate art vocabulary. Select students may be eligible to participate in the Visions Art course based on a portfolio assessment and teacher recommendation.

**Course Name: Art 8 (Visions Art)**

**Local Code: 911508**

**Grade Level: 8**

**Course Description:**

This is a year-long course, advanced art program designed for 8<sup>th</sup> grade students who may wish to pursue art as a career. Students will focus on creating a portfolio or work that would assist them in applying to an advanced art program, such as Advanced Placement Art or the Governor's School for The Arts. Art projects are an extended version of Art 8 semester art, with additional requirements in art history and keeping a sketchbook. Students are allowed to enroll in this course through recommendation from the art teacher, and performance in 7<sup>th</sup> grade art and/or portfolio entry.

**Course Name: Chorus**

**Local Code: 927007**

**Grade Level: 7**

**Course Description:**

This course is designed to work with those students interested in developing their vocal musical talents and abilities. Students will sing in unison, rounds, two parts, and partner songs. Students will work on intonation, expression, and reading musical notation. Performances are an essential and required element of the class and will impact a student's grade. Students will perform for school events and various district events.

**Course Name: Chorus**

**Local Code: 929608**

**Grade Level: 8**

**Course Description:**

This course works on expanding and developing the student's vocal range and musical capabilities using difficult music and sight-reading. Students will sing in unison, rounds, two and three parts, and partner songs. Performances are an essential and required element of the class and will impact a student's grade. Students will perform for school concerts and various district events.

## MIDDLE SCHOOL COURSES

**Course Name: Intro to Guitar I****Local Code: 924507****Grade Level: 7****Course Description:**

In this course students will receive beginning instruction on acoustic guitar. Students will learn basic positions, right and left hand techniques and tone production. Proper care of the guitar will be taught as well as counting, reading and performing music of various levels of difficulty.

**Course Name: Intro to Guitar II****Local Code: 924508****Grade Level: 8****Prerequisite:** Student needs a recommendation from Guitar teacher**Course Description:**

In this course students will learn basic guitar skills including the history of guitar, identifying parts of the guitar, and how to tune by ear. The students will begin to read music, learn basic strumming techniques, and how to play open chords.

**Course Name: Beginning Band****Local Code: 923006****Grade Level: 6****Course Description:**

This course will enable students to begin receiving instruction on traditional band instruments. The students will focus on mastering basic skills such as correct breathing techniques, posture, embouchure, and hand/fingering positions. Students will start by playing simple rhythmic patterns and basic expressive elements. Students will count, read and perform music as well as opportunities to participate in local events.

**Course Name: Concert Band****Local Code: 923107****Grade Level: 7****Prerequisite:** Students must have prior playing experience such as formal instruction in a band program, knowledge of note names (A-G), and counting of basic rhythms (whole, half, quarter, and eighth).**Course Description:**

In this yearlong course students will focus on continuing to develop basic musicianship and music literacy. Students will explore greater use of articulations, scales, key signatures and repertoire representative of Grade Levels 1-3 in accordance of the Virginia Band and Orchestra Directors Association (VBODA). Students will also study aspects of basic composing, music theory, and historical periods, musical styles, composers and career options in music. Performances are an essential and required element of the course and will impact a student's grade. Students will perform for school events, district events, and a local parade. Some after-school practice is involved to prepare for performances as well as local, district and regional events.

**Course Name: Concert Band****Local Code: 924008****Grade Level: 8****Course Description:**

In this course students should have prior playing experience such as formal instruction in a school band program. Students should have mastered basic skills and will focus on acquiring more advanced technical and expressive skills and demonstrate a mature level of musicianship. Students will demonstrate advanced articulations, fingerings, scales and arpeggios, rudiments and complex rhythmic patterns and literature representative of Grade Levels 2-4 of the Virginia Band and Orchestra Directors Association (VBODA). Students will also study aspects of basic composing, music theory, history, and career options in music. Performances are an essential and required element of the course and will impact a student's grade. Students will perform for school events, district events, and a local parade. Some after-school practice is involved to prepare for performances as well as local, district and regional events.

**Course Name: Jazz Band****Local Code: 926007****Grade Level: 7****Local Code: 925008****Grade Level: 8****Prerequisite: Audition with criteria set by the band director****Course Description:**

In this course members of the jazz band will be expected to participate in concert band performances. Students will perform a variety of jazz music from different styles. Students will study some jazz theory and history. Students will also study aspects of basic composing, music theory, and history. Performances are an essential and required element of the class and will impact a student's grade. Students will perform for school, community, and district events. There is some after-school practice involved to prepare for performances.

## CAREER AND TECHNICAL EDUCATION

### Technology Education

**Course Name: Design and Modeling****Local Code: 847601****Course Description:**

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

## MIDDLE SCHOOL COURSES

**Course Name: Automation and Robotics**

**Local Code: 847602**

**Course Description:**

Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

# HIGH SCHOOL CURRICULUM

## General Information

The information in this guide is designed to help students and parents with the selection of courses for ninth through twelfth grades. Students should study this publication and consult with their parents, school counselors, and teachers in planning their individual program of study. School guidance counselors can help with planning process by reviewing test scores and records of past achievements and by discussing current interests and long-term goals. School guidance counselors also have up-to-date information available about various training programs, schools, colleges, universities, and employment possibilities.

## Academic Year

The regular academic year is at least 180 days, divided into two semesters. Courses are generally one semester in length, and students receive a final grade and one standard unit of credit at the end of the semester for each course successfully completed. Some courses, however, like AP courses are yearlong and receive two standard units of credit at the completion of the course.

## Course Credit

The normal maximum number of credits to be earned in one school year is eight. Under special circumstances, a student may earn more than eight credits. Requests for special consideration should be discussed with the school counselor and approved by the principal.

## Registration

All students will be expected to maintain the full-day schedule of classes required to meet the minimum standards necessary for graduation established by the Virginia Board of Education. Seniors may request a late arrival or early release, but the request must be approved by the principal.

## Access to Courses

Courses are offered at each high school based on student selection and interest. Therefore, all courses may not be offered at each site. School guidance counselors will work very closely with students and parents to develop academic and career plans where appropriate substitutions can be made for courses not offered.

## Schedule Changes

The division encourages students to give serious consideration to the selection of courses during the scheduled registration period. Course changes are discouraged. All requests for schedule changes must be submitted in writing to the guidance office and signed by a parent. **All schedule changes are subject to the approval of the principal and will be made on a space available basis.** Students receiving a grade below a "C-" at the end of the first nine weeks may move to a lower level course in

the same subject area, where such courses are available. The student's current grade will transfer forward to the new course.

## Alternative Methods for Granting Standard Units of Credit

Students seeking high school credit for courses not offered by Isle of Wight County Schools must receive prior written approval from the principal before enrolling in a course desiring credit. In requesting alternative methods for credit the following guidelines have been established:

1. A parent/guardian meets with the student's school counselor prior to requesting permission to enroll in other accredited secondary schools or programs of study if credit for these courses is desired. The purpose of this meeting is to review the student's academic plan and discuss alternative methods for receiving credit for courses not offered by Isle of Wight County Schools.
2. A parent/guardian must submit in writing thirty (30) days prior to enrollment a request to the principal to enroll in another program of study outside of Isle of Wight County Schools for which an alternative method for receiving credit is desired.
3. In the letter the parent/guardian must include (1) the reason(s) for enrolling in this program of study, (2) course description including time allotment and (3) provide copies of the course or program of study objectives and table of contents of text book or other resources to be used for instruction.
4. The principal will respond in writing to the parent/guardian within ten (10) working days of receiving the request for an alternative method for credit as to whether or not approval will be given for the student to enroll in the program of study. If the enrollment request is denied, the principal will state the reason(s) for denying the request.
5. The parent/guardian may appeal the decision of the principal to the assistant superintendent within five (5) days of receiving the principal's decision. The assistant superintendent will render a written decision within 10 working days of the parent or guardian's appeal. This decision is final.

## Placement/Promotion Procedure

Recommendations concerning instructional placement of students are the responsibility of the teacher and other professional staff directly involved with the students. The final decision concerning placement, however, rests with the principal. Promotion at the high school level is based on the guidelines listed:

# HIGH SCHOOL CURRICULUM

- Students who are promoted from grade 8 will be placed in grade 9.
- Students in high school progress toward graduation on a course-by-course basis. Students take courses based upon academic performance, academic needs, graduation requirements, and previous credits earned.
- Graduation requirements for students shall be those in effect at the time the student entered the ninth grade for the first time.
- Assignment of class standing is made on the following basis: (Core academic courses include those taught in the areas of English, mathematics, science, and history/social science.)
  - ✓ Six (6) units of credit with a total of three (3) core academic courses including English are required for promotion to the tenth grade.
  - ✓ Twelve (12) units of credit, with a total of six (6) core academic courses, including English 9 and 10, are required for promotion to the eleventh grade.
  - ✓ Fourteen (14) units of credit, with a total of nine (9) core academic courses including English 9, 10, and 11, are required for promotion to the twelfth grade. All twelfth grade students must be in position to graduate in June of the academic year in which they are classified as seniors.

## High School Grading Policy

High school teachers are expected to record at least two grades per category every four and one-half weeks. A student's high school grade shall consist of an 80% / 20% split. Learning activities shall count 80% while the mid-term/final exam shall count 20%. The learning activities are included in the different types of courses below.

Grades will be calculated based on the categories and weighted values below:

### All Courses

(except for Advanced, Honors, CTE and Foreign Language courses)

<u>Category</u>	<u>Weighted Value</u>
Test/Culminating Project	55%
Classwork/Lab/Quiz/Essay/Project	30%
Homework	15%

### AP and Honors Courses

<u>Category</u>	<u>Weighted Value</u>
Test/ Culminating Project	60%
Classwork/Lab/Quiz/Essay/Project	30%
Homework	10%

## Career and Technical Education (CTE) Courses

<u>Category</u>	<u>Weighted Value</u>
Test/Project	40%
Classwork, Journal, Lab	30%
Quiz, Sub-unit	20%
Homework	10%

## Foreign Language Courses

<u>Category</u>	<u>Weighted Value</u>
Test/Project	45%
Quiz/Language Skills	30%
Homework/Classwork	25%

Grades for the first half and the second half of a semester or yearlong course are determined by averaging the nine weeks grade(s) and the examination grade. The nine weeks grade(s) shall count 80% and the examination grade shall count 20%. Learning activities shall count 100% of the nine weeks or semester grade in the event of exam exemption (see IKG). The grades for the first half and second half of the course are averaged to determine the final grade. Numerical grades shall be used to report student achievement.

Students may retake the same course when the student wishes to obtain a better grade in a course. The original grade shall appear on the transcript and the retaken course grade shall also appear on the transcript. The higher grade shall be figured into the GPA. Students shall receive credit only once for a single course. The credit earned for the course shall appear on the transcript under the higher course grade.

## Athletic/Activity Participation Interscholastic Competition

High schools shall be members of the Virginia High School League and shall abide by its rules and regulations. In addition to Virginia High School League eligibility requirements, a student who participates in interscholastic competition, practices, or travel must pass three of four subjects and have a 2.00 grade point average in the semester preceding participation, or maintain a 2.00 or better cumulative grade point average. Interscholastic activities approved by the school board shall be available for participation by high school students. Participation in interscholastic activities such as forensics, dramatics, literary competition, and other Virginia High School League is encouraged.

Transportation to and from Virginia High School League activities may be provided by school bus, provided proper arrangements are made and approved by the principal and the superintendent or the superintendent's designee.

Eighth graders entering the eighth grade for their first semester are automatically eligible for junior varsity

## HIGH SCHOOL CURRICULUM

athletic activities only. They must be enrolled in four core courses, i.e., math, language arts, science, social studies and at least one exploratory course. To remain eligible for the second semester the student must pass three of four core courses and have an *overall* grade point average of 2.00 or better.

All eligible students must also comply with the attendance policy and be in good standing thus meeting the bona fide student rule of the VHSL. Any student who is under penalty of suspension or pending disciplinary action, or is under any criminal charges or pending charges is not considered in good standing. A student charged with a felony criminal offense, will be suspended from athletic or any VHSL activities until final court disposition. Once the final disposition has been rendered on the charge(s), the incident will be reviewed by the principal and athletic director. A student convicted of a felony offense, will be immediately suspended from all athletic participation for a minimum of one calendar year. After the calendar year suspension has been served, the student or his/her parent may petition the principal or athletic director for future consideration in extra-curricular activities. The student must inform his/her principal of **any** criminal charges against them as soon as practicable, but no later than the student's next practice/game in any athletic activity. Failure to inform the principal of the criminal charges will result in immediate dismissal from any athletic activity for a minimum of one calendar year. Based on the nature of the criminal offense or disciplinary action, principals have the authority to sanction a member of their school's athletic teams through loss of playing time, temporary removal from participation in practice(s) and or game(s) for a designated period of time, including complete removal from the team.

You can find additional information pertaining to Virginia High School League rules and regulations in the student handbook at <http://www.vhsl.org/about.vhsl-handbook>.

### NCAA Eligibility

Students planning to participate in intercollegiate athletics at an NCAA Division I or II institution must have their academic and amateurism status certified by the NCAA Eligibility Center. Only core courses that appear on the high school's List of NCAA Courses on the NCAA Eligibility Center's website will be used to calculate the student's core-course grade point average (GPA). The web site is [www.eligibilitycenter.org](http://www.eligibilitycenter.org). The SAT score used includes only the critical reading and math sections. The ACT score used is a sum of the four sections on the ACT: English, mathematics, reading and science. All SAT and ACT scores must be reported directly to the NCAA Eligibility Center by the testing agency. Test scores that appear on transcripts will **not** be used. When registering for the SAT or ACT, use the Eligibility Center code of 9999 to make sure the score is reported.

### Division I Information and Core Academic Requirements

NCAA Division I requires 16 core courses. Ten (10) core courses must be completed before the seventh semester; seven (7) of the 10 must be in English, math or natural/physical science. The courses/grades are "locked in" at the start of the seventh semester (cannot be repeated for GPA improvement to meet initial-eligibility requirements for competition). Students who do not meet core-course progression requirements may still be eligible to receive athletics aid and practice in the initial year of enrollment by meeting academic redshirt requirements. Please visit the eligibility website above for more information. See Appendix D, for the corresponding test score and core-course GPA sliding scale.

- 4 years English
- 3 years mathematics (at Algebra I level or higher)
- 2 years social science
- 2 years natural or physical science (1 year of lab if offered at any high school attended)
- 1 year additional English, mathematics, or natural/physical science
- 4 years of additional courses (from any area above, foreign language or comparative religion/philosophy)

### Division II Information and Core Academic Requirements

Beginning August 1, 2018, to become a full or partial qualifier for Division II, all college-bound student-athletes must complete the 16 core-course requirement. Division II currently requires a minimum SAT score of 820 or an ACT sum of 68. Beginning August 1, 2018, Division II will use a sliding scale to match test scores and core-course GPA. See Appendix E, for the sliding scale requirements.

- 3 years English
- 2 years mathematics (Algebra I or higher)
- 2 years social science
- 2 years natural/physical science (1 year of lab if offered by high school)
- 3 years additional courses in English, mathematics, or natural or physical science
- 4 years of additional courses (from an area above, foreign language or comparative religion/philosophy).

The NCAA rules are complex, so students should ask coaches, student activities coordinators, and school guidance counselors for help. It is important to let the counselor know if a student plans to seek an athletic scholarship. More detailed information is available on the NCAA website at <http://www.ncaa.org/>.

Division III does not use the NCAA Eligibility Center. Contact your Division III College regarding policies on amateurism and eligibility requirements for sports.

## HIGH SCHOOL CURRICULUM

### Homebound Services

The School Board shall maintain a program of homebound instruction for students who are confined at home or in a health care facility for periods that would prevent normal school attendance based upon certification of need by a licensed physician, physician assistant, nurse practitioner, or clinical psychologist. Credit for the work shall be awarded when it is done under the supervision of a licensed teacher, a person eligible to hold a Virginia license, or other appropriately licensed professional employed by the School Board, and there is evidence that the instructional time requirements or alternative means of awarding credit adopted by the School Board have been met. The principal is responsible for the provisions of homebound instruction – securing the homebound instructor, screening assignments, gathering work from the homebound instructor, and securing approval for providing homebound instruction from the homebound instruction coordinator.

The following procedures should be followed to implement policy IGBG, Homebound Instruction:

1. Parents who want homebound instruction for a child should have a Homebound Instruction Medical Certification of Need (IGBG-E1) and an original prescription completed by a licensed physician, psychiatrist, or clinical psychologist. The forms must be completed by a professional authorized to treat the illness for which homebound services are being requested.
2. The principal employs a certified teacher when a Homebound Instruction Medical Certification of Need and an original prescription are returned with a recommendation for homebound instruction, and the request has been approved by the homebound instruction coordinator. A copy of the Homebound Instruction Medical Certification of Need and an original prescription is forwarded to the homebound instruction coordinator.
3. The principal submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the homebound instruction coordinator two (2) days before the payroll due date.
4. The homebound instruction coordinator submits the homebound instructor's time sheet (IGBG-E2) with the necessary signatures to the finance department by the payroll due date.
5. Students on homebound instruction are considered present in school for the period of approved homebound instruction.
6. Extensions of homebound service require the completion and approval of the Homebound Instruction Medical Certification of Need Reauthorization Form (IGBG-E3).
7. Receipt of Homebound Instruction does not guarantee passing of courses, promotion to the next grade, or on-time graduation.

### Driver Education Program

The classroom driver education course is offered as part of the tenth grade health education curriculum in all high

schools following guidelines set forth in Virginia code §22.1-205. When students successfully complete the classroom phase and have secured a learner's permit, they then may take behind-the-wheel driver instruction. The behind-the-wheel driver instruction is **not** offered in the division.

### Advanced Placement (AP) Program

Advanced Placement is a College Board program that offers students the opportunity to take college-level courses while they are enrolled in high school. Students have the opportunity to learn a subject in greater depth, develop analytical reasoning skills, and develop study skills necessary for success at the college level. Both high schools in Isle of Wight County Schools participate in the Advanced Placement program. Students and parents may contact the guidance department of the respective high school to obtain additional information and a list of the AP courses that are offered. Parents are strongly encouraged to assist their student with AP course selections.

AP teachers are available to answer course content and requirement questions. The College Board also publishes a booklet, Advanced Placement Course Description, for each course. This booklet describes the content of the AP course and provides sample examination questions. Additional information is available at [www.collegeboard.org](http://www.collegeboard.org). Students may gain advanced standing and/or earn college credit through their performance on the AP examinations that are given each year in May. Students registering for AP courses should review their selections with the school guidance counselor to be sure the proper credit will be awarded. A limited number of AP courses serve as replacements for high school courses; therefore, credit would not be given for both. All AP examinations (except Studio Art and Music Theory) contain both multiple choice and free response questions that require essay writing and problem solving. In Studio Art, students submit portfolios of their work instead of taking an exam. In Music Theory, a competency examination in music theory is given. In administering the AP program, the following guidelines have been established:

1. AP courses prepare students to take the AP examinations in the spring. Students will only receive the weighted credit for the course, if he/she takes the AP exam. **If the student does not take the AP exam, he/she will receive honors weight for the course.** The exams serve as a nationally accepted standard for rigorous college-level courses.
2. The student is responsible for the cost of an AP examination fee. Funds may be made available to qualified students enrolled in an AP course who wish to take the AP examination and need financial assistance with the examination fee.

## HIGH SCHOOL CURRICULUM

- Students are responsible for verifying granting of college credit for successful completion of any course with the colleges or universities they choose to attend. Some information on a school's AP credit policy can be found at <http://collegesearch.collegeboard.com/apcreditpolicy/index.jsp>.
- Some AP courses may require the completion of summer assignments.

### Advanced Placement Examinations

Advanced Placement examinations are offered in the following subjects:

#### Art

History of Art  
Studio Art – Drawing, 2-D Design, or 3-D Design

#### World Languages

French Language and Culture  
German Language and Culture  
Japanese Language and Culture  
Latin  
Spanish Language  
Spanish Literature and Culture

#### Language Arts

English Language and Composition  
English Literature and Composition

#### Mathematics

Calculus AB  
Calculus BC  
Computer Science A  
Statistics

#### Music

Music Theory

#### Science

Biology  
Chemistry  
Environmental Science  
Physics 1  
Physics C (Mechanics)  
Physics C (Electricity and Magnetism)

#### Social Studies

European History  
Human Geography  
Comparative Government  
Psychology  
United States Government and Politics  
United States History  
World History

### Dual Enrollment Program

All students are encouraged to participate in dual enrollment courses. The division offers qualified students the opportunity to begin post-secondary education prior to high school graduation through agreements with Paul

D. Camp Community College. Currently dual enrollment courses are offered to 11<sup>th</sup> and 12<sup>th</sup> grade students. Exceptions will be made for 10<sup>th</sup> graders taking advanced math courses. Students may take college courses and simultaneously earn credit towards high school graduation and college degree requirements. Students attend classes taught on the high school campus by an approved instructor. Course offerings will be reviewed with students during the registration process. Grades earned will be reflected on the student's high school and college transcript. Grades are awarded according to the policies of the college, and credit earned for the courses taken may sometimes be transferred to other public colleges in Virginia. Students are responsible for verifying granting of college credit for successful completion of any course with the colleges or universities they choose to attend. English and math dual enrollment courses will receive honors weight. Dual enrollment courses may be used in lieu of Advanced Placement courses for the Governor's Seal. Students interested in taking other non-dual enrollment college courses for high school credit need to secure prior approval from their principal. **The drop/withdrawal date for dual enrollment courses will be the last day of the 1<sup>st</sup> 9 weeks in the course.**

### PDCCC Admission Requirements for Dual Enrollment Courses

Dual enrollment applicants must:

- Be prepared for demands of a college course,
- Complete the required college application materials,
- Take required VPT placement tests prior to admission in a course, and
- Meet college and university prerequisites for course enrollment

### Summer Program

Students who have not passed the SOL assessment and need the verified credit may retake the test during the summer administration. It is the responsibility of the student to obtain written permission from the principal prior to enrolling in summer school courses to determine the acceptability of courses or credits earned in summer school outside Isle of Wight County Schools.

### Virtual Virginia Program

Virtual Virginia, sponsored by the Virginia Department of Education, provides online courses to students across the Commonwealth. With Advanced Placement (AP) courses and non-AP courses, students have the opportunity to enroll in courses that they may not be able to fit into their regular school day or take advantage of courses that are not currently available in their schools. Most courses are available in a yearlong format and/or a 4X4 block schedule. While students may earn high school credits through the Virtual Virginia program, Virtual Virginia credits may not take students beyond the ten credits per year limit for Isle of Wight County students. Each course is

## HIGH SCHOOL CURRICULUM

taught by a licensed Virginia teacher who maintains online and telephone office hours. Each student is also supported by a school-based mentor, who provides guidance and information to help ensure student success. Required materials are either integrated within the course or are provided by Isle of Wight County Schools. While some courses require tuition, any students participating in the Early College Scholars Program have their AP course tuition covered by the Virginia Department of Education. If a course is not part of the Isle of Wight County Schools' Program of Studies, the student or parent/guardian is responsible for the paying the registration fee, providing the textbook, and paying the cost of the AP exam for the course. Students are required to take the AP exam in order to receive advanced weight for the course. Students who enroll in a Virtual Virginia course and choose to drop the course twenty-one days after the start date will be assessed a \$75.00 fee. Students who are successful in online classes are generally skilled in the use of technology, are self-disciplined, very motivated, have good communication skills (reading and writing), and have an interest in interacting with others in an online course environment. To learn more about Virtual Virginia opportunities, please visit their web site at <http://www.virtualvirginia.org/>. You should also contact your school guidance counselor for further information and registration information. Additional information about online learning and virtual classes can be found in Isle of Wight School Board Policy IGBGA.

### **Governor's Early College Scholars Program**

Students, who meet the terms of the Early College Scholars agreement, see Appendix F, are recognized and receive a certificate of recognition from the Governor. The benefits are a more productive senior year and could reduce the cost spent for college tuition. Students earning a college degree in seven semesters instead of eight can save an average of \$5,000 in expenses. The Early College Scholars Program criteria are below.

#### **To qualify for the Early College Scholars program, a student must:**

- Have a "B" average or better;
- Be pursuing an Advanced Studies Diploma; and
- Take and complete college-level course work (i.e., Advanced Placement, International Baccalaureate, Cambridge, or dual enrollment) and earn at least 15 transferable college credits.

Early College Scholars are supported by the Virginia Virtual Advanced Placement School and the Commonwealth College Course Collaborative. The Virginia Virtual Advanced Placement School provides statewide access to college-level courses while the Commonwealth College Course Collaborative defines the subjects high school students can complete and receive college degree credit from participating public and private colleges and universities. Participating students sign an Early College

Scholars Agreement, which is also signed by the student's parents or guardians, principal, and school counselor. Please contact the school guidance counselor for additional information and registration. (Information about the Early College Scholars initiative of the Virginia Department of Education can be obtained by each school's guidance department or at [http://www.doe.virginia.gov/instruction/graduation/early\\_college\\_scholars/index.html](http://www.doe.virginia.gov/instruction/graduation/early_college_scholars/index.html)).

### **Academic Enrichment Program**

The Academic Enrichment Program is a 25 minute period assigned for no credit. Academic Enrichment is used to enhance and protect classroom instruction through remediation, study time, assemblies, administrative tasks, and club meetings. When implemented in a school, all students are enrolled in Academic Enrichment and it does not take the place of courses for credit.

### **Individual Student Alternative Education Plan (ISAEP)**

The Individual Student Alternative Education Plan (ISAEP) is a Commonwealth of Virginia initiative to provide an opportunity for students ages 16-17 to work toward a General Education Development (GED®) Certificate and a vocational or career skill without dropping out of school. Students must be referred and must qualify to be admitted to this program. ISAEP will only be considered for students after all measures to maintain students in a diploma program have been exhausted. For more information on the referral process, contact your student's school guidance counselor.

### **Gifted Education Programs**

#### **The Governor's School for the Arts**

The Governor's School for the Arts is a regional, secondary visual and performing arts school sponsored by the Virginia Department of Education and the public school divisions of Chesapeake, Franklin, Isle of Wight, Norfolk, Portsmouth, Southampton, Suffolk, and Virginia Beach. The Governor's School for the Arts is located in Norfolk. In order to attend, students must be enrolled in the ninth, tenth, eleventh, or twelfth grade in a public school in one of the participating school divisions. The Governor's School for the Arts is one of the specialized Virginia public schools designated as "Governor's Schools" whose mission is to provide intense educational opportunities for gifted and talented students in grades 9-12. Classes are held at the campus of Old Dominion University and in Downtown Norfolk. **The school division provides tuition and transports students between the schools and the Governor's School for the Arts only.**

The Governor's School for the Arts provides pre-professional, individualized, and focused instructional programs in dance, instrumental and vocal music, musical

## HIGH SCHOOL CURRICULUM

theater, theater, and visual arts for students with a high degree of artistic talent and potential for growth. Students must be committed to developing their talents and interested in pursuing careers in the arts.

Students take academic courses at their regular high schools in the morning and attend the Governor's School for the Arts in the afternoon for three hours daily during the regular academic year. Classes may be individualized lessons, small or large group instruction, or rehearsals. The average class size is 12 students. Students may earn four credits for each year they attend the Governor's School for the Arts. These courses are given honors weight. Students earn four (4) credits per year.

There are two steps in the application process. Interested students, in grades 8-11, must complete and mail an application for an audition. (Applications may be secured from guidance offices.) Applicants who pass the audition must provide teacher references and additional forms for review.

Students who are accepted by the Governor's School for the Arts should carefully weigh all options and discuss them with their parents. While this specialized training represents outstanding opportunities for aspiring artists, it may also lead to difficult choices. **Some course options within the home school will be precluded by the scheduling demands of the Governor's School for the Arts.** (Additional information can be obtained from the guidance department.)

### The Governor's School for Science and Technology

The Governor's School for Science and Technology, located in Hampton, Virginia, serves students enrolled in high schools from the Hampton Roads area. The Governor's School for Science and Technology is a two-year, half-day program for 11<sup>th</sup> and 12<sup>th</sup> grade students. Admission is highly competitive and based on previous math and science course selection and grades, teacher recommendations, and standardized achievement scores. Students accepted to attend the Governor's School for Science and Technology will be expected to enroll in one of the following designated strands: engineering, biological science, or scientific programming.

The **Engineering Strand** provides an intense, rigorous study of fundamental principles of engineering and calculus-based physics. Students develop a passion for calculus and physics during their junior year. Building a robot, constructing a fuel cell, and then proceeding to on-line technology that studies air-bag deployment principles in automobiles are just a few of the engineering activities students experience in the course. The ideas of Maxwell and Hawking are studies during the senior year. Understanding the physics behind such inventions as the TV, computers, and magnetic resonance imaging

technology round out the senior year. In addition, senior year includes the study of modern physics exploring relativity, quantum mechanics, and nuclear physics.

The **Biological Science Strand** provides insights into organic and inorganic chemistry in conjunction with cell and molecular biology by employing advanced technologies utilized in medicine, forensic science, and research labs. An advanced level understanding of biology and chemistry sets the stage for senior students to argue controversial topics concerning the environment. Analyze water quality and biodiversity during monthly sampling of a nearby pond. Extensive field work and laboratory analysis generates a nine-month database for a more comprehensive understanding of our local environment.

The **Scientific Programming Strand** provides a detailed study of the fundamental concepts of Computer Science (using Java) and non-calculus based physics. In the junior year, students study the fundamentals of object-oriented programming, Newtonian mechanics and thermodynamics. The senior year will provide an exhaustive study of data structures, algorithms and simulations of continuous and discrete systems.

With small class sizes and advanced-degreed faculty, the learning environment at the Governor's School is truly unique. Each course has been specifically structured to incorporate best practices for gifted students. Each strand requires completion of one year high school biology, one year of high school chemistry, and Algebra II/Trig prior to admission. For the engineering strand, students must have successfully completed Math Analysis (Pre-Calculus) prior to admission. All strands encompass a math course during both the junior and senior year. Placement in the appropriate math course will be determined upon admission at the end of the 10<sup>th</sup> 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. In total, students will spend approximately 3 hours at the Governor's School, taking three courses each year during the two-year program.

### Scientific Research Experience

During their two years at the Governor's School, students will experience hands-on science through classroom experimentation and individualized project research. The junior year research experience involves

- various aspects of research methodology,
- ethics and statistics,
- critical thinking skills,
- scientific writing and communication skills,
- a research project for submission to Tidewater Science Fair.

During the senior year, students participate in an Honors Research and Mentorship experience with a professional.

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Final projects are presented to the local scientific and professional community as a culminating experience in May. The opportunity to work with a professional in research is an invaluable experience toward career pursuits.

The Isle of Wight County School Division purchases slots in this regional program in an effort to expand educational offerings for eligible students in the 11th and 12th grades.

**The school division provides tuition and transports students between the schools and the Governor's School for Science and Technology only.**

### Career and Technical Education Program

Career and Technical Education is for students who wish to prepare themselves for post-secondary education in a two or four year college, in a technical institution, and/or in the workforce. Diploma seeking students are encouraged to take courses as electives that will qualify them as Career and Technical Education completers.

A specific sequence of career and technical courses taken at either high school or a specific career and technical area of one or two year programs at The Pruden Center constitutes a completer. The student should consult with the school guidance counselor about the required sequence for the program he/she wishes to complete.

### The Pruden Center Program

The Pruden Center for Industry & Technology is a regional public school serving Isle of Wight County and Suffolk City schools. The Center provides career and technical education to high school students in both divisions. Students who attend Lakeland, Nansemond River, King's Fork, Smithfield, or Windsor high schools are eligible to register for programs at The Pruden Center as part of their free public education experience and can earn elective credit toward high school education. The contract with The Pruden Center has not been renewed, so this will be last school year that students will be able to attend this program.

The Pruden Center prides itself in continued efforts to deliver relevant and rigorous education and training to all its secondary and adult education patrons. Our Mission: *To provide students with career opportunities designed to promote personal and professional development, life-long learning experiences and enhanced quality of life via career and technical instruction for preparation and integration into the global economic community.*

This is accomplished by ensuring that well qualified staff members are met with eager pupils. Additionally, partnerships with parents and community members, business and industry, as well as joint endeavors with secondary and post-secondary entities help to develop prosperous trajectories for our students' career pathways.

The Pruden Center's programs are taught on a three-hour block schedule. In some programs, it is possible to earn verified credits toward graduation by successfully passing industry or state certification/licensure exams.

Each of The Center's fifteen instructional programs is designed to prepare students for the next phase of career development. For some students, it means entry-level employment after high school. For most students, it means continued education at the post-secondary level. Whether the student is interested in a four-year university, a community college, a technical or trade school, or an apprenticeship, The Pruden Center can be a valuable first step for students in preparation for the careers of their choice. The Pruden Center offers students the opportunity to begin post-secondary education prior to high school graduation through an agreement with Paul D. Camp Community College.

For Isle of Wight County students, the yearlong course meets two blocks of the school day and earns four credits per year. Daily bus transportation is provided for all students.

### WorkPlus Program

The WorkPlus Program is a cooperative program in which students are served at The Pruden Center. Students must register with their school guidance counselor and must attend the program orientation and/or meet with the coordinator of student services from the cooperating school district prior to being placed into the program. Requirements of the program include:

- The student must be at least 17 years old.
- The student must be enrolled in both a GED preparation program and a CTE course at The Center during the academic year
- The student must pass both the GED preparation and CTE course, along with achieving qualifying scores on the official GED Pre-Test, prior to being able to take the GED test.

## HIGH SCHOOL COURSES

### ENGLISH

**Course Name:** Local English

**Local Code:** 15151S

**Grade Level:** 9, 10, 11 and 12

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to teach and reinforce the basic oral and written communication skills needed for independent living as outlined on the student's IEP. This course may be continued.

**Course Name:** English I Skills Seminar

**Local Code:** 11305G

**Course Description:**

Students are recommended for placement in this course based on multiple criteria, which include results from prior Standards of Learning assessments and other standardized testing. Students will receive instruction in the use of word recognition and context to build vocabulary; conventions of print and non-print to increase understanding and comprehension of text; strategic reading to increase comprehension and enhance learning and retention; and writing in response to text. Nonfiction selections will be used extensively to assist students in building success in reading content-area textbooks. Independent reading will be incorporated into the class to build fluency, expand vocabulary, provide practice, and increase the enjoyment of reading.

**Course Name:** English 9 (Paired w/ Skills Seminar)

**Local Code:** 11306G

**Prerequisite:** English I Skills Seminar

**Course Description:**

In this course students will build on their knowledge in key areas of reading such as word study, vocabulary, fluency, and comprehension, while following along with the English 9 curriculum. Data assessments are conducted periodically to monitor skills in reading, allowing for personalization of the curriculum and skills.

**Course Name:** English 9

**Local Code:** 11300G

**Prerequisite:** Pass Eighth Grade English SOL Test

**Course Description:**

Classroom instruction focuses on the presentation and critique of dramatic readings from literary selections and continues the development of proficiency in making planned oral presentations. Knowledge of literary terms and forms is applied in student writing and in the analysis of literature. English 9 introduces significant literary works from a variety of cultures and eras, which span 1000 A.D. to the present. Writing encompasses narrative, literary, expository, and technical forms with attention to analysis and mastery of grammar, mechanics, sentence structure, and the writing process.

**Course Name:** Honors English 9

**Local Code:** 11300H

**Prerequisite:** Pass Eighth Grade English SOL Test and Teacher Recommendation

**Course Description:**

This course is designed for students who have demonstrated ability and interest in English and helps students prepare for the Advanced Placement course work. The course focuses on oral and written communication in the areas of research, literary analysis, and technical forms. Knowledge of literary forms, oral presentation, and interdisciplinary approaches are incorporated into literature instruction. Summer assignments are required. This course receives honors weighted credit.

**Course Name:** English II Skills Seminar

**Local Code:** 11405G

**Course Description:**

Students are recommended for placement in this course based on multiple criteria, which include results from prior Standards of Learning assessments and other standardized testing. Students will receive instruction in the use of word recognition and context to build vocabulary; conventions of print and non-print to increase understanding and comprehension of text; strategic reading to increase comprehension and enhance learning and retention; and writing in response to text. Nonfiction selections will be used extensively to assist students in building success in reading content-area textbooks. Independent reading will be incorporated into the class to build fluency, expand vocabulary, provide practice, and increase the enjoyment of reading.

**Course Name:** English 10 (Paired w/Skills Seminar)

**Local Code:** 11406G

**Prerequisite:** English II Skills Seminar

**Prerequisite:** English 9

**Course Description:**

In this course students will build on their knowledge in key areas of reading such as word study, vocabulary, fluency, and comprehension, while following along with the English 10 curriculum. Data assessments are conducted periodically to monitor student growth in reading comprehension, spelling/word study, vocabulary development and writing.

**Course Name:** English 10

**Local Code:** 11400G

**Prerequisite:** English 9 or Honors English 9

**Course Description:**

This course stresses reading from a variety of worldwide cultures and eras. Readings include various literary forms and consumer materials. Students use writing for evaluation and interpretation of ideas obtained through the readings. Small-group learning activities are used for the student to present and critique oral reports. In both reading and writing activities, including research, students

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gather information through the use of technology. Attention is given to analysis of printed consumer information, such as labels, owners' manuals, warranties, and contracts.

**Course Name: Honors English 10**

**Local Code: 11400H**

**Prerequisite: English 9 and teacher recommendation; or Honors English 9**

**Course Description:**

This course is designed for students who have demonstrated ability and interest in English and helps students prepare for the Advanced Placement course work. Students will engage in writing experiences including business letters, essays, and creative writing projects. Oral presentations are required. World literature and language through reading and the development of analytical oral and written expression are emphasized. This course receives honors weighted credit.

**Course Name: English 11**

**Local Code: 11500G**

**Prerequisite: English 10 or Honors English 10**

**Course Description:**

This course incorporates a study of American literature with interdisciplinary aspects of United States History. Emphasis is on written and oral communication encompassing expository, persuasive, and technical skills. Literary analysis, research, and technical writings are included.

**Course Name: Honors English 11**

**Local Code: 11500H**

**Prerequisite: English 10 and teacher recommendation; or Honors English 10**

**Course Description:**

This course will serve as an introduction to American literature. Selections are organized within a chronological framework. Various authors and their works will be studied with emphasis on the short story, essay, poetry, drama, and novel. Emphasis is also placed on vocabulary development, study and research, grammar usage, listening and speaking skills, and all aspects of composition, culminating in writing and orally presenting a research project. Reading novels is required. This course receives honors weighted credit.

**Course Name: AP Language & Composition**

**Local Code: 11960AP or 11960VA**

**Prerequisite: English 10 and teacher recommendation; or Honors English 10**

**Course Description:**

This is a yearlong course and may replace English 11. The purpose of the course is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. The course engages students in becoming skilled readers of prose written in a

variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Through their writing and reading, the course will emphasize the expository, analytical, and argumentative writing that forms the basis of academic and professional communication. Students will learn to read primary and secondary sources carefully, to synthesize material from these texts in their own compositions, and to cite sources using conventions recommended by professional organizations such as the Modern Language Association (MLA), the University of Chicago Press (The Chicago Manual of Style), the American Psychological Association (APA), and the Council of Biology Editors (CBE). This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: English 12**

**Local Code: 11600G**

**Prerequisite: English 11 or Honors English 11**

**Course Description:**

In this course the emphasis is on the cultural development of English (British) literature and literature of other cultures by stressing major literary forms, themes, and techniques in an interdisciplinary approach. The student develops expository and technical writings. Comprehensive oral presentations and research projects reflect organizational skills, audience awareness, and appropriate vocabulary/grammar.

**Course Name: DE English 12**

**Local Code: 11600DE**

**Prerequisite: Honors English 11 or AP English 11**

**Course Description:**

In this course Language Arts will be taught with added emphasis on vocabulary, composition, and English literature, as well as multicultural classic and contemporary selections. Literary works are organized within a chronological framework, providing further opportunities for making literary connections. Students are motivated to make connections between the literature they read and their own lives. Emphasis is on critical thinking. Each student will write a documented informational paper and present it orally to a group, write analyses of literary works, and participate in a variety of other written and oral projects. Reading novels is required. This PDCCC dual enrollment course aligns with ENG 111 and ENG 112. **Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course.** This course receives advanced weight.

**Course Name: AP English Literature & Composition**

**Local Code: 11950AP or 11950VA**

**Prerequisite: English 11 and teacher recommendation; or Honors English 11; or AP English Language and Composition; and passed English 11 SOL tests**

**Course Description:**

This is a yearlong course and may replace English 12. The instructional objectives are based on the College Board's

## HIGH SCHOOL COURSES

Advanced Placement Program. The course prepares students for the AP examination in English Literature and Composition. Students are required to complete reading and writing assignments before entering the class. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Capstone English Course**

**Local Code: 11760G**

**Co-requisite: English 12**

**Prerequisite: English 11; and minimum proficiency on English 11 Reading and Writing SOL Test**

**Course Description:**

Virginia's *College and Career Ready English Performance Expectations* grade 12 capstone course contains high-interest contextualized content designed to give certain 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).

**Course Name: Creative Writing**

**Local Code: 11710G**

**Prerequisite: English 9 or Honors English 9**

**Course Description:**

This course extends students' prose writing techniques. Emphasis is placed on a variety of prose models that include short stories, essays, and dramatic scripts.

**Course Name: Photo-Journalism I**

**Local Code: 12150G**

**Prerequisite: English 10 or Honors English 10**

**Course Description:**

This course provides students with the opportunity to work on the production/publication of a school yearbook. Students will study aspects of journalistic writing including writing body copy, captions, and headlines. Layout and design as well as salesmanship are essential areas of the class. Students will study the guidelines of photographic composition and are expected to apply the guidelines to class assignments.

**Course Name: Photo-Journalism II**

**Local Code: 12160G**

**Prerequisite: Photo-Journalism I**

**Course Description:**

This course focuses on advanced mechanics of journalism, photography, layout design, copywriting, proofreading, and salesmanship. This class produces the yearbook.

**Course Name: Photo-Journalism III**

**Local Code: 12170G**

**Prerequisite or Grade Level: Photo-Journalism II**

**Course Description:**

This course focuses on advanced mechanics of journalism, photography, layout design, copywriting, proofreading, and salesmanship. Students will be assigned leadership roles as section editors and business managers, and will help in choosing themes and covers, proofreading, and selecting and cropping photographs. This class produces the yearbook.

**Course Name: Photo-Journalism IV**

**Local Code: 12200G**

**Prerequisite or Grade Level: Photo-Journalism III**

**Course Description:**

This course focuses on advanced mechanics of journalism, photography, layout design, copywriting, proofreading, and salesmanship. Students will be assigned leadership roles as editors of sections of the yearbook. This class produces the yearbook.

**Course Name: Journalism I**

**Local Code: 12001G**

**Course Description:**

This course is designed to teach practical applications of journalistic concepts in ethics, layout, staffing, and reporting. This class produces the school newspaper and other media assignments.

**Course Name: Journalism II**

**Local Code: 12102G**

**Prerequisite or Grade Level: Journalism I**

**Course Description:**

This course is designed to teach practical applications of journalistic concepts in ethics, layout, staffing, and reporting. This class produces the school newspaper and other media assignments.

**Course Name: Journalism III**

**Local Code: 12113G**

**Prerequisite or Grade Level: Journalism II**

**Course Description:**

This course is designed to teach practical applications of journalistic concepts in ethics, layout, staffing, and reporting. This class produces the school newspaper and other media assignments.

**Course Name: Journalism IV**

**Local Code: 12124G**

**Prerequisite or Grade Level: Journalism III**

**Course Description:**

This course is designed to teach practical applications of journalistic concepts in ethics, layout, staffing, and reporting. This class produces the school newspaper and other media assignments.

**Course Name: Speech Fundamentals /Public Speaking**

**Local Code: 13000G**

**Prerequisite or Grade Level: English 9 or Honors English 9**

**Course Description:**

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This course covers the theory and practice of public speaking. The course guides students through topic selection, organization, language, and delivery. Students will be actively involved in every step of the process of public speaking preparation and execution. Students will work independently and in small groups. Assignments include formal speeches (to inform, to persuade, and to pay tribute), brief extemporaneous speeches, speech analyses and evaluations, nonverbal communication, debate, mass media, and parliamentary procedures.

**Course Name: Reading Across the Curriculum**

**Local Code: 01161G**

**Prerequisite or Grade Level: Approved Participation**

**Course Description:**

In this course the student will build on their knowledge in key areas of reading such as word study, vocabulary, fluency, and comprehension. The student will learn to analyze the sound, pattern, and meaningful relationships among words through interactive learning and activities. Fluency will be targeted to improve reading rate, accuracy, and expression. Vocabulary and comprehension strategies will be taught through a variety of genre (fiction and non-fiction). Writing will incorporate the use of graphic organizers. This course will consist of direct instructional (whole group) and differentiated instructional (small group) activities.

## MATHEMATICS

**Course Name: Local Mathematics**

**Local Code: 32001S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to teach and reinforce basic mathematical concepts needed for independent living as outlined on the student's IEP. This course may be continued. NOTE: Local Mathematics does not count as a mathematics credit for a Standard or Modified Standard Diploma.

**Course Name: Algebra I**

**Local Code: 31300G**

**Course Description:**

The course is designed to build relationships among algebra and arithmetic, geometry, and probability and statistics. Connections are made with other subject areas through practical applications. Students will use algebra as a tool for representing and solving a variety of practical problems. Tables and graphs are used to interpret algebraic expressions, equations, and inequalities, and to analyze behaviors of functions. Graphing calculators, computers, and other appropriate tools will be used to assist in teaching and learning. Students are encouraged to talk about mathematics, to use the language and symbols of mathematics to communicate, to discuss problems and problem-solving, and to develop their confidence in

mathematics. Instruction will focus on sequential development of concepts and skills using concrete materials to assist in the transition from the arithmetic to the symbolic.

**Course Name: Algebra I – Part 1**

**Local Code: 31310G**

**Course Description:**

The course requires students to use algebra as a tool for representing and solving a variety of practical problems. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze behaviors of functions. Graphing calculators, computers, and other appropriate technology tools will be used to assist in teaching and learning. Graphing utilities enhance the understanding of functions; they provide a powerful tool for solving and verifying solutions to equations and inequalities. Throughout the course, students will be encouraged to engage in discourse about mathematics with teachers and other students, use the language and symbols of mathematics in representations and communication, discuss problems and problem solving, and develop confidence in them as mathematics students. This class covers objectives at a more relaxed pace to better ensure mastery of skills.

**Course Name: Algebra I – Part 2**

**Local Code: 31320G**

**Course Description:**

The course requires students to use algebra as a tool for representing and solving a variety of practical problems. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze behaviors of functions. Graphing calculators, computers, and other appropriate technology tools will be used to assist in teaching and learning. Graphing utilities enhance the understanding of functions; they provide a powerful tool for solving and verifying solutions to equations and inequalities. Throughout the course, students will be encouraged to engage in discourse about mathematics with teachers and other students, use the language and symbols of mathematics in representations and communication, discuss problems and problem solving, and develop confidence in them as mathematics students.

**Course Name: Geometry**

**Local Code: 31430G**

**Prerequisite: Algebra I & verified math credit in Algebra I or AFDA**

**Course Description:**

This course is designed for students who have successfully completed the Algebra I standards. It focuses on properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. The standards emphasize two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems.

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**Course Name: Geometry - Part 1****Local Code: 31440G****Prerequisite: Algebra I & verified math credit in Algebra I or AFDA****Course Description:**

This course is designed for students who have successfully completed the Algebra I standards. It focuses on properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. The standards emphasize two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. This class covers objectives at a more relaxed pace to better ensure mastery of skills.

**Course Name: Geometry - Part 2****Local Code: 31450G****Prerequisite: Algebra I & verified math credit in Algebra I or AFDA****Course Description:**

This course is designed for students who have successfully completed the Algebra I standards. It focuses on properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. The standards emphasize two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. This class covers objectives at a more relaxed pace to better ensure mastery of skills.

**Course Name: Honors Geometry****Local Code: 31430H****Prerequisite: Algebra I & verified math credit in Algebra I****Course Description:**

This course is designed for the student who has mastered the Algebra I standards and excels in mathematics. The standards emphasize two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. It focuses on properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Accelerated pacing will allow the student to apply logic skills by proving more complex theorems to increase higher-level thinking skills. This course receives honors weighted credit.

**Course Name: Algebra II****Local Code: 31350G****Prerequisite: AFDA or Geometry; 1 verified credit in math****Course Description:**

This course focuses on advanced algebraic concepts through the study of functions, “families of functions,” equations, inequalities, systems of equations and inequalities, polynomials, rational and radical equations, complex numbers, and sequences and series. Emphasis is placed on practical applications and modeling. Written and oral communication concerning the language of algebra, logic of procedures, and interpretation of results are

taught. This course emphasizes a transformational approach to graphing functions. It builds a strong connection between algebraic and graphic representations of functions. Students vary the coefficients and constants of an equation, observe the changes in the graph of the equation, and make generalizations that can be applied to many graphs. Graphing calculators will be used.

**Course Name: Honors Algebra II****Local Code: 31350H****Prerequisite: Geometry; 2 verified math credits****Course Description:**

The standards for this combined course in Algebra II and Trigonometry include all of the standards listed for Algebra II and Trigonometry. Topics include, but are not limited to, complex numbers; functions and graphs; systems of equations and inequalities; polynomial, logarithmic, and exponential functions and equations; and sequences and series. Topics from trigonometry include circular functions, graphs, and applications. Graphing calculators are used to enhance the understanding of realistic applications through mathematical modeling and to aid in the investigation and study of functions, equations, and inequalities. This course is designed for advanced students who are capable of a more rigorous course at an accelerated pace. The standards listed for this course provide the foundation for students to pursue a sequence of advanced mathematical studies from Mathematical Analysis to Advanced Placement Calculus. This course receives honors weighted credit.

**Course Name: Algebra, Functions, and Data Analysis****Local Code: 31340G****Prerequisite: Algebra I****Course Description:**

This course is designed for the student who has successfully completed Algebra I. Students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data generated by practical applications arising from real-life situations. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. The standards for this course also focus on a transformational approach to graphing functions and writing equations when given the graph of the equation. The Standards of Learning for this course build a strong connection between algebraic and graphic representations of functions, as well as algebra and statistics overall.

**Course Name: DE Probability and Statistics****Local Code: 31900DE****Prerequisite: Math Analysis/Pre-Calculus****Course Description:**

The purpose of this course is to present basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. Graphing calculators and other technologies will be used to enhance the

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understanding of mathematical concepts. The course is designed for students who are capable of more rigorous content at an accelerated pace. This PDCCC dual enrollment course aligns with MTH 240. **Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course.** This course receives advanced weight.

**Course Name: Functions Trigonometry**

**Local Code: 31610H**

**Prerequisite: Algebra II**

**Course Description:**

This course provides students with a solid foundation in algebra and trigonometry, shows students how algebra and trigonometry can be used to model real-world problems, and enables students to develop critical-thinking skills. Several topics introduced in Algebra II will be studied in more detail while new topics on trigonometric functions, identities, equations and triangles will be explored. This course receives honors weighted credit.

**Course Name: DE Math Analysis/Pre-Calculus**

**Local Code: 31625DE**

**Prerequisite: Functions Trigonometry or Algebra II / Trigonometry**

**Course Description:**

This course develops students' understanding of algebraic and transcendental functions, parametric and polar equations, sequences and series, and vectors. The content of this course serves as appropriate preparation for a calculus course. In addition, the course includes an overview of some aspects and applications of calculus: limits of functions, derivatives, anti-derivatives of polynomial functions, definite integrals, and the Fundamental Theorem of Calculus. This PDCCC dual enrollment course aligns with MTH 163 and MTH 164.

**Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course.** This course receives advanced weight.

**Course Name: DE Calculus**

**Local Code: 31995DE**

**Prerequisite: Functions Trigonometry (w/teacher recommendation) or Math Analysis/Pre-Calculus**

**Course Description:**

The course instruction focuses on limits, differentiation, and integration. Solutions of differential equations by separation of variables, analysis of word problems, and use of graphing calculators in their solutions are emphasized. This PDCCC dual enrollment course aligns with MTH 175 and MTH 176. **Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course.** This course receives advanced weight.

**Course Name: Calculus**

**Local Code: 31990H**

**Prerequisite: Functions Trigonometry (w/teacher recommendation) or Math Analysis/Pre-Calculus**

**Course Description:**

The course instruction focuses on limits, differentiation, and integration. Solutions of differential equations by separation of variables, analysis of word problems, and use of graphing calculators in their solutions are emphasized. This course receives honors weight.

**Course Name: AP Calculus AB**

**Local Code: 31770AP or 31770VA**

**Prerequisite: Calculus or Math Analysis**

**Course Description:**

This is a yearlong course. This course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations also are important. Broad concepts and widely applicable methods are emphasized. The focus of the course is neither manipulation nor memorization of an extensive taxonomy of functions, curves, theorems, or problem types. Thus, although facility with manipulation and computational competence are important outcomes, they are not the core of these courses. Technology will be used regularly by students and teachers to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. Through the use of the unifying themes of derivatives, integrals, limits, approximation, and applications and modeling, the course becomes a cohesive whole rather than a collection of unrelated topics. These themes are developed using all the functions listed in the prerequisites. The learning objectives for the course can be found on the College Board website. This course prepares students for the AP examination in Calculus AB. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP Calculus BC**

**Local Code: 31775AP or 31775VA**

**Prerequisite: Calculus (with teacher recommendation) or AP Calculus AB**

**Course Description:**

This is a yearlong course. Calculus BC is an extension of Calculus AB rather than an enhancement; common topics require a similar depth of understanding. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

## LABORATORY SCIENCE

**Course Name:** Local Science

**Local Code:** 46101S

**Grade Level:** 9, 10, 11 and 12

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to teach and reinforce basic science concepts and to develop science knowledge needed for independent living and that leads to responsible participation in the world of work as outlined on the student's IEP. This course may be continued.

**Course Name:** Earth Science

**Local Code:** 42100G

**Course Description:**

This course is primarily a study of the earth's composition, structure, processes, and history, its atmosphere, fresh water, and oceans, and its environment in space. The class teaches historical contributions to the development of scientific thought about earth and space. Major topics of study include plate tectonics, the rock cycle, Earth history, the oceans, the atmosphere, weather and climate, and the solar system and universe.

**Course Name:** Honors Earth Science

**Local Code:** 42100H

**Course Description:**

This course is the study of Earth Science focuses on the interactions of Earth systems with resulting changes on crustal materials, landforms, rock structures, air, water, and life itself. The study of the earth is extended into the cosmos through an investigative exploration of the universe. Disciplines that will be studied are geology, astronomy, meteorology, and oceanography. Higher levels of thinking and reasoning are taught, including analysis and synthesis. Time will be allocated for independent research. This course receives honors weighted credit.

**Course Name:** Oceanography (Earth Science Discipline)

**Local Code:** 42500G

**Prerequisite:** Earth Science

**Course Description:**

This course is a study of the physical, chemical, geological, and biological aspects of the oceans. Topics include life in oceans, waves, tides and currents, chemistry of seawater, and weather and climate. Students will investigate issues of local, regional, national, and global concern, and will explore possible solutions. Career opportunities in oceanography will be studied.

**Course Name:** Biology I

**Local Code:** 43100G

**Course Description:**

This course is designed to provide a detailed understanding of living systems and to emphasize

alternative scientific explanations related to controlled experiments, analysis and communication of information, and use of scientific literature. Biology I explores the history of biological thought and the evidence that supports it. It provides the foundation for investigating biochemical life processes, cellular organization, mechanisms of inheritance, dynamic relationships among organisms, and change in organisms. The importance of scientific research that validates or challenges ideas is emphasized.

**Course Name:** Honors Biology I

**Local Code:** 43100H

**Course Description:**

This course is designed to give students an understanding of plant and animal morphology and physiology, as well as nature study, civic biology (ecology), health education, and basic principles of biology. Students are required to read selected articles from an approved list. Experiments are performed, and students build equipment from raw materials to test scientific principles. Higher levels of thinking and reasoning are taught that include analysis and synthesis. Time will be allocated for independent research. This course receives honors weighted credit.

**Course Name:** AP Biology

**Local Code:** 43700AP or 43700VA

**Prerequisite:** Biology I or Honors Biology I; Honors Chemistry; (Honors Anatomy/Physiology is highly recommended)

**Course Description:**

This is a yearlong course. The key concepts and related content that define the course are organized around a few underlying principles called the big ideas, which encompass the core scientific principles, theories and processes governing living organisms and biological systems. It is intended for students who have the conceptual framework, factual knowledge, and analytical skills to critically evaluate biological issues. Topics covered include molecules and cells, heredity and evolution, and organisms and populations. The learning objectives for the course can be found on the College Board website. The course will prepare students for the AP examination in Biology. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name:** Biology II: Ecology

**Local Code:** 43400G

**Prerequisite:** Biology

**Course Description:**

This course is designed to provide students with an understanding of the cause-effect relationships existing among/between organisms and their environment. Emphasis is placed on mankind's impact on the environment and its ecosystems, and on future environmental and ecological needs. Students study a variety of environmental and ecological topics comprising environmental systems, including: global warming; the

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ozone layer; water pollution; alternative energy sources; interrelationships among resources and an environmental system; biodiversity; biotic and abiotic factors in habitats; ecosystems and biomes; sources and flow of energy through an environmental system; relationships between carrying capacity and changes in populations and ecosystems. Lab work, the use of multimedia and computer simulations, and laboratory and field investigations are important components of this course.

**Course Name: Anatomy and Physiology**

**Local Code: 43305H**

**Prerequisite: Biology I or Honors Biology I; (Honors Chemistry is highly recommended)**

**Course Description:**

This course enables students to effectively link structures of the human body with their functions. Focuses of this course will include anatomical terminology, maintenance of homeostasis, and detailed analysis of the following organ systems: Integumentary, Skeletal, Muscular, Nervous, Cardiovascular, Respiratory, Digestive, Urinary, and Reproductive. Students will research and discuss abnormalities that occur during development, throughout life, and changes specifically associated with cancers and genetic disorders. This course receives **honors** weighted credit.

**Course Name: Chemistry**

**Local Code: 44105H**

**Prerequisite: Biology I or Honors Biology I; Algebra II or Honors Algebra II**

**Course Description:**

This course is designed for students who wish to acquire a strong foundation in chemistry and are interested in taking higher-level high school science courses. Quantitative aspects of chemistry are stressed, and there is heavy emphasis on problem-solving. Honors Chemistry includes an in-depth study of quantitative relationships of energy and matter, molecular structure, kinetic theory, thermodynamics, solution chemistry, and organic chemistry are included in this course. Development of students' analytical abilities is emphasized through both laboratory experience and discussions in the classroom. This course receives **honors** weighted credit.

**Course Name: AP Chemistry**

**Local Code: 44700AP or 44700VA**

**Prerequisite: Chemistry or Honors Chemistry; Algebra II or Algebra II/Trigonometry**

**Course Description:**

This yearlong course is designed to be the equivalent of a college introductory general chemistry course. It is designed to enable students to attain a depth of understanding of the fundamentals of chemistry and a reasonable competence in dealing with chemical problems. Upon successful completion of the course students will be able to comprehend the development of principles and concepts, to demonstrate application of

principles, to relate fact to theory and properties to structure, and to understand systematic nomenclature. The course will emphasize experimental procedures, observations of chemical substances and reactions, recording of data, and calculation and interpretation of results based on quantitative data. The course follows an outline proposed by the College Board Advanced Placement Program. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Physics**

**Local Code: 45105H**

**Prerequisite: Algebra I; Biology I or Honors Biology I**

**Course Description:**

The course presents a complex study in the areas of force and motion, energy transformations, wave phenomena and the electromagnetic spectrum, light, electricity, fields and non-Newtonian physics. The use of mathematics, including algebra and trigonometry, is important, but conceptual understanding of physics systems remains a primary concern. Topics are presented in depth and at a fast pace. Independent practice and dependence on previous learning is routine. Advanced skills in reading comprehension and mathematics proficiency are absolutely essential to student success. Laboratory experiments will be conducted so that students can experience the principles of physics in action. The course receives **honors** weighted credit.

**Course Name: AP Physics 1: Algebra-Based**

**Local Code: 45707AP or 45707VA**

**Prerequisite: Algebra II**

**Course Description:**

This yearlong course is a non-calculus based physics course that is equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It also introduces electric circuits. Hands-on lab experiments are an important part of the course. Most of the labs are open-ended with students given an objective and a list of equipment. Students design their own procedure, data gathering, and data analysis. Each experiment requires a written lab report, which students maintain in individual portfolios. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP Physics 2: Algebra-Based**

**Local Code: 45708AP or 45708VA**

**Prerequisite: AP Physics 1: Algebra-Based**

**Course Description:**

This yearlong course is a non-calculus based physics course that is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics. Hands-on lab experiments are an important part of the course. Most of the labs are

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open-ended with students given an objective and a list of equipment. Students design their own procedure, data gathering, and data analysis. Each experiment requires a written lab report, which students maintain in individual portfolios. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

### SOCIAL STUDIES

**Course Name: Local History**

**Local Code: 29961S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to teach and reinforce basic history/social science concepts and to develop history/social science knowledge needed for independent living and that leads to responsible participation in the world of work as outlined on the student's IEP. This course may be continued.

**Course Name: World History I** (World History and Geography to 1500 A.D.)

**Local Code: 22150G**

**Course Description:**

In this course, students will explore the historical development of people, places, and patterns of life from ancient times until circa 1500 A.D. The course requires students to describe and compare selected civilizations in Asia, Africa, Europe, and the Americas in terms of chronology, location, geography, social structures, forms of government, economy, religion, and contributions to later civilizations. Geographic content and skills will be emphasized in addition to historical content and skills.

**Course Name: Honors World History I** (World History and Geography to 1500 A.D.)

**Local Code: 22150H**

**Course Description:**

This course will require students to explore in depth the civilizations which developed in Asia, Europe, Africa, and the Americas from ancient times until 1500 A.D. Students will apply skills in inquiry/research, technology, geographic knowledge, and historical content in order to compare and contrast selected civilizations. Students will be expected to describe, analyze, and evaluate orally and in written research papers, the patterns and networks of geography, religion, social structures, government, economy, location, and historical cause and effect of people and events on ancient civilizations. Students will compare extensive supplementary readings and analytical papers. The course will help prepare students for the expectations and skill sets required to be successful in an AP course. This course receives **honors** weighted credit.

**Course Name: World History II** (World History and Geography: 1500 A.D. to Present)

**Local Code: 22160G**

**Course Description:**

This course covers history and geography from the late Middle Ages 1500 A.D. to the present with emphasis on Western Europe. Geographic influences on history continue to be explored, with increasing attention given to political boundaries that developed with the evolution of nation-states. Significant attention is given to the ways in which scientific and technological revolutions created new economic conditions that in turn produced social and political changes. The people and events of the 19th and 20th centuries are emphasized for their strong connections to contemporary issues. The course strikes a balance between the broad themes of history and specific historic events, ideas, issues, persons, and documents. Using texts, maps, pictures, stories, diagrams, charts, and a variety of chronological, inquiry/research, and technological skills, students develop competence in chronological thinking, historical comprehension, and historical analysis.

**Course Name: Honors World History II** (World History and Geography: 1500 A.D. to Present)

**Local Code: 22160H**

**Prerequisite or Grade Level: World History I or Honors World History I**

**Course Description:**

In this course the origin of western civilization and the impact of non-western civilization upon the West and upon world cultures from 1500 A.D. to present are central themes of this course. Through study of cultures, geography, and historical development, the course leads to a deeper understanding of contemporary global issues. Distinguishing characteristics found within each of the cultures are examined through literature, art, architecture, music, religion, and philosophy. Historical emphasis is placed upon such areas as comparative political, economic, and social systems. Emphasis is placed upon current crises, international relations, and the increasing interdependence of nations. Concepts and techniques employed by historians, archaeologists, and other social scientists are explored and practiced. The course demands outside readings, analysis of primary source material, and application and evaluation of research. The course will help prepare students for the expectations and skill sets required to be successful in an AP class. This course receives **honors** weighted credit.

**Course Name: Virginia and U.S. History**

**Local Code: 23600G**

**Course Description:**

This course covers the development of American ideas and institutions from the Age of Exploration to the present. It focuses on political and economic history, and provides students with a basic knowledge of American culture through a chronological survey of major issues,

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movements, people, and events in United States and Virginia history.

**Course Name: Honors Virginia and U.S. History**

**Local Code: 23600H**

**Course Description:**

This course covers the development of American ideas and institutions from the Age of Exploration to the present. It focuses on political and economic history and provides students with a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Virginia history. Higher levels of thinking and reasoning are taught which include analysis and synthesis. Time will be allocated for independent research. The course will help prepare students for the expectations and skill sets required to be successful in an AP class. This course receives honors weighted credit.

**Course Name: AP United States History**

**Local Code: 23190AP or 23190VA**

**Prerequisite: World History I and II; Honors World History II is highly recommended**

**Course Description:**

This is a yearlong course and may replace Virginia and U.S. History. It prepares students for the AP examination in United States History. AP United States History covers the historical development of American ideas and institutions from the Age of Exploration to the present. The course focuses on political and economic history and provides students with a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Virginia history. The course demands outside reading, analysis of primary source material, and research application and evaluation technologies that enhance student learning. Summer work will be assigned in June and the work will be collected during the first week of school. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Virginia and U.S. Government**

**Local Code: 24400G**

**Course Description:**

This course focuses on an understanding of the origins and workings of the American and Virginian political systems. It focuses on the United States and Virginia constitutions, the structure and operation of United States and Virginia governments, and the process of policy-making, with emphasis on economics, foreign affairs, and civil rights issues. Course objectives include the impact of the general public, political parties, interest groups, and the media on policy decisions. United States' political and economic systems are compared with those of other nations, with emphasis on the relationships between economic and political freedoms.

**Course Name: Honors Virginia and U.S. Government**

**Local Code: 24400H**

**Course Description:**

This course focuses on understanding the origins and workings of the American and Virginian political systems. It focuses on the United States and Virginia constitutions, the structure and operation of United States and Virginia governments, and the process of policy-making, with emphasis on economics, foreign affairs, and civil rights issues. Course objectives include the impact of the general public, political parties, interest groups, and the media on policy decisions. United States' political and economic systems are compared with those of other nations, with emphasis on the relationships between economic and political freedoms. Higher levels of thinking and reasoning are taught which include analysis and synthesis. Time will be allocated for independent research. This course receives honors weighted credit.

**Course Name: AP United States Government and Politics**

**Local Code: 24450AP or 24450VA**

**Prerequisite: Honors Virginia and U. S. History; AP U. S. History is highly recommended**

**Course Description:**

This is a yearlong course and may replace Virginia and U.S. Government. The course prepares students for the AP United States Government and Politics examination. It is designed to give students an analytical perspective on government and politics in the United States, including both the study of general concepts used to interpret U. S. politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U. S. politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Discussion topics that may be explored throughout this course are: constitutional underpinnings of United States Government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government; and public policy. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP United States Government/Politics and AP Comparative Government**

**Local Code: 24455AP**

**Prerequisite: Honors Virginia and U. S. History; AP U. S. History is highly recommended**

**Course Location: SHS Only**

**Course Description:**

This is a yearlong course and covers the material from two AP government courses. The course prepares students for the AP United States Government/Politics and AP Comparative Government examinations. It is designed to give students an analytical perspective on government and politics in the United States, including both the study of general concepts used to interpret U. S. politics and the analysis of specific examples. It also requires familiarity

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with the various institutions, groups, beliefs, and ideas that constitute U. S. politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Discussion topics that may be explored throughout this course are: constitutional underpinnings of United States Government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government; and public policy. The AP course in Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes. Comparison assists both in identifying problems and in analyzing policymaking. For example, we only know that a country has a high population growth rate or serious corruption when we compare it to other countries. Careful comparison of political systems produces useful knowledge about the policies countries have effectively initiated to address problems, or, indeed, what they have done to make things worse. We can compare the effectiveness of policy approaches to poverty or overpopulation by examining how different countries solve similar problems. Furthermore, by comparing the political institutions and practices of wealthy and poor countries, we can begin to understand the political consequences of economic wellbeing. Finally, comparison assists explanation. Why are some countries stable democracies and not others? Why do many democracies have prime ministers instead of presidents?

In addition to covering the major concepts that are used to organize and interpret what we know about political phenomena and relationships, the course should cover specific countries and their governments. Six countries form the core of the AP Comparative Government and Politics course. China, Great Britain, Mexico, Nigeria, and Russia are all regularly covered in college-level introductory comparative politics courses. The inclusion of Iran adds a political system from a very important region of the world and one that is subject to distinctive political and cultural dynamics. By using these six core countries, the course can move the discussion of concepts from abstract definition to concrete example, noting that not all concepts will be equally useful in all country settings. This course receives **advanced** weighted credit, if the student sits for **both** of the corresponding College Board exams.

**Course Name: AP Psychology**  
**Local Code: 29020AP or 29020VA**  
**Course Description:**

This yearlong course is an introduction to the scientific study of behavioral and mental processes of humans and

other animals. The major principles of psychology, including ethics and the methods of psychologists, will be examined. Students will receive an elective credit for this course. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Sociology**

**Local Code: 25000G**

**Course Description:**

This course is designed to examine the principles of sociology, the individuals in a group, social institutions, social control, and the use of research methods to examine social problems and issues. The course provides opportunities for students to develop critical thinking, decision-making and social skills concerning human relationships.

**Course Name: AP European History**

**Local Code: 23990AP or 23990VA**

**Course Description:**

This is a yearlong AP course that may be taken in place of World History II. **Students will be required to take the World History II EOC SOL test, if the student has not previously passed the assessment.** Students will develop an understanding of the main themes in the study of modern European history. The themes cover political, diplomatic, intellectual, cultural, social, and economic history from 1450 to the present. The students will learn four types of skills: chronological reasoning, comparison and contextualization, crafting historical arguments from historical evidence, and historical interpretation and synthesis. Special focus will be paid to causes and effects of events from short to long term, the interaction of multiple causes and effects, and “turning point” events that led to major shifts in European history. Geography skills will be developed through the analysis of a country’s location in a geopolitical context. The course will utilize a college -level textbook and prepare students for college readiness and success. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

## HEALTH/PHYSICAL EDUCATION

**Course Name: Adaptive Physical Education I**

**Local Code: 77001S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualize course for students with disabilities represents an orientation period in which students are exposed to a wide variety of physical education activities. Skills are taught through various games and sports where students may participate. Adaptive Physical Education is a modified program of developmental activities, games, sports, and rhythms designed to provide each student with opportunities to develop organic vigor, muscular strength, and endurance within the limits of the individual’s abilities. The skills taught will depend on the individual’s abilities

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and medical advice. The IEP/504 team determines participation in Adaptive Physical Education.

**Course Name: Adaptive Physical Education II**

**Local Code: 77002S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized course for students with disabilities represents the continuation of skills acquisition in a variety of competitive learning situations in various games and sports as well as overall fitness. Adaptive Physical Education is a modified program of developmental activities, games, sports, and rhythms designed to provide each student with opportunities to develop organic vigor, muscular strength, and endurance within the limits of the individual's abilities. The skills taught will depend on the individual's abilities and medical advice. The IEP/504 team determines participation in Adaptive Physical Education.

**Course Name: Health and Physical Education 9**

**Local Code: 73000G**

**Grade Level: 9**

**Course Description:**

In this course the student will integrate a variety of health concepts, skills, and behaviors to plan for their personal, lifelong health goals. These include awareness and consequences of risky behaviors, disease prevention, overall wellness, and identification of community health resources. The students will apply concepts and principles of mechanics and anatomy in relation to human movement and apply the concepts and principles of the body's metabolic response to short-term and long-term physical activity. Movement experiences will enable the student to demonstrate competent and confident movement in a variety of categories. Student will explain the structures and functions of the body and how they relate to and are affected by human movement. Student will explain the importance of energy balance and nutritional needs of the body to maintain optimal health and prevent chronic disease. The student will demonstrate the social competencies needed to be a contributing member of society. Seeing them self as having an active role in creating a healthy lifestyle for them self as an individual, for his/her family, and for the larger community. A student with an IEP or 504 plan may substitute **Adaptive Physical Education** for this course, upon the recommendation of the IEP or 504 team.

**Course Name: Health, Physical Education 10, and Driver's Education (with NO behind-the-wheel component)**

**Local Code: 74050G**

**Grade Level: 10**

**Course Description:**

In this course the student will understand detailed fundamentals of driving which will foster responsible driving attitudes and behaviors. The student will learn that driver literacy has a far-reaching effect on public safety, public health and quality of life. Learning safe driving in

the classroom is an essential school-to-work transitional skill. The student will demonstrate comprehensive health and wellness knowledge and skills. The student will reflect their behavioral conceptual understanding of the issues associated with maintaining good personal health. The student will apply concepts and principles of mechanics and anatomy in relation to human movement and apply the concepts and principles of the body's metabolic response to short-term and long-term physical activity. The student will explain the structures and functions of the body and how they relate to and are affected by human movement. The student will explain the importance of energy balance and nutritional needs of the body to maintain optimal health and prevent chronic disease. The student will create and implement a health-enhancing personal health plan for personal fitness and prevention of chronic disease. The intent of the standard is to evaluate personal fitness levels and create an appropriate plan with goals, activities, and timelines that will maintain and improve level of physical fitness for the present and for post-secondary (college and career). The student will demonstrate the aptitude, attitude, and skills to lead responsible, fulfilling, and respectful lives.

**Course Name: Advanced PE I**

**Local Code: 76400G**

**Prerequisite: Health, Physical Education 10 and Driver Education**

**Course Description:**

In this course elective physical education provides students with the opportunity to participate in physical activities for specific purposes. Students should be offered the opportunity to self-select activity throughout the course. Students will select areas of concentration to study. Examples of possible choices are: individual sports, lifelong activities, outdoor pursuits, Pilates, self-defense, skating, team sports, weight management, weight training/conditioning. Students in grades eleven and twelve demonstrate the knowledge and understanding necessary to analyze movement performance in an activity of choice using scientific principles, and implement effective practice procedures for skillful performance in specialized movement forms. Students apply advanced movement-specific information so that they develop the ability to learn, self-assess, and improve movement skills independently.

**Course Name: Advanced PE II**

**Local Code: 76500G**

**Prerequisite: Advanced PE I**

**Course Description:**

In this course elective physical education provides students with the opportunity to participate in physical activities for specific purposes. The student can continue the programs previously established in Advanced PE I or choose to use new programs to expand his/her personal training ONLY after teacher approval. Students should be offered the opportunity to self-select activities throughout

## HIGH SCHOOL COURSES

the course. Students will select areas of concentration to study. Examples of possible choices are: individual sports, lifelong activities, outdoor pursuits, Pilates, self-defense, skating, team sports, weight management, weight training/conditioning. Students in grades eleven and twelve demonstrate the knowledge and understanding necessary to analyze movement performance in an activity of choice using scientific principles, and implement effective practice procedures for skillful performance in specialized movement forms. Students apply advanced movement-specific information so that they develop the ability to learn, self-assess, and improve movement skills independently.

### WORLD LANGUAGES

**NOTE:** All levels of French and Spanish emphasize the skills of listening, speaking, reading, writing, and culture. Emphasis in Latin is placed on components, language processes, literature, and culture.

**Course Name: French I**

**Local Code: 51100G**

**Course Description:**

The course incorporates understanding words and expressions in varied contexts, the use of acceptable French in daily classroom communications, association of written with spoken forms of the language, and written responses to questions and directed statements. The geography of French-speaking countries and comparative lifestyles are also studied.

**Course Name: French II**

**Local Code: 51200G**

**Prerequisite: French I**

**Course Description:**

In this course the students focus on understanding and retaining familiar material in new contexts, refining pronunciation, stress, and intonation, reading for functional purposes and writing guided paragraphs and dialogues. The class explores current events in French-speaking countries.

**Course Name: French III**

**Local Code: 51300G**

**Prerequisite: French II**

**Course Description:**

In this course the third-year skills include dealing with increasingly advanced materials, communication of complex ideas and information in directed activities, expansion of vocabulary, and writing short compositions on assigned topics. Historical events in French-speaking countries and the contributions of their people to American life are considered.

**Course Name: French IV**

**Local Code: 51400G**

**Prerequisite: French III**

**Course Description:**

In this course the objectives stress more formal presentations, the use of tone, mood, and inflection as they relate to communications, developing reading skills and written reports on assigned topics. Students also study French culture in some detail.

**Course Name: French V**

**Local Code: 51500G**

**Prerequisite: French IV**

**Course Description:**

In this course the students assume more responsibility for refining their communication skills, both spoken and written; practice reading with greater comprehension; and develop pronunciation skills. The study of French culture is continued. This course receives **honors** weighted credit.

**Course Name: AP French Language and Culture**

**Local Code: 51700AP or 51700VA**

**Prerequisite: French IV**

**Course Description:**

This is a yearlong course. The objectives for this course duplicate the College Board Advanced Placement Program. The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French. The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). . This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Latin I**

**Local Code: 53100G**

**Course Description:**

The course focuses on the primary elements of grammar, analysis and interpretation of syntax in a given sentence, and reading aloud with standard classical pronunciation and accent. Major geographical, mythological, and cultural derivative study begins.

## HIGH SCHOOL COURSES

**Course Name: Latin II****Local Code: 53200G****Prerequisite: Latin I****Course Description:**

In this course second-year students expand their understanding of the elements of grammar, and read and comprehend passages of appropriate difficulty. The major geographical features of the Roman world and a history of Rome during the Regal and Republican periods are taught. Continued emphasis is placed on the culture and mythology of Rome and Latin derivatives.

**Course Name: Latin III****Local Code: 53300G****Prerequisite: Latin II****Course Description:**

In this course third-year students develop an increased knowledge of derivatives, study Latin authors and their works, and use critical analysis in reading and comprehending selected passages. The cultural and historical contexts of classical works are presented. Students strengthen speaking and cultural appreciation skills.

**Course Name: Latin IV****Local Code: 53400G****Prerequisite: Latin III****Course Description:**

In this course the fourth year students examine the elements of grammar within the context of written literary works and become increasingly skilled in syntax. Selected Latin passages are studied through critical analysis, and students appraise the literary value of works being studied.

**Course Name: Latin V****Local Code: 53500G****Prerequisite: Latin IV****Course Description:**

In the advanced level course the students assume more responsibility for developing grammatical and syntactical skills. More in-depth consideration of classical Latin writings is studied within their historical contexts. This course receives honors weighted credit.

**Course Name: AP Latin: Vergil****Local Code: 53700AP or 53700VA****Prerequisite: Latin IV****Course Description:**

This is a yearlong course. The objectives for this course duplicate the College Board Advanced Placement Program. This course prepares students for the AP examination in AP Latin: Vergil. Students of AP Latin: Vergil will be expected to accurately read and translate selections from Vergil's Aeneid, demonstrate a grasp of the epic's grammatical structures and vocabulary, comprehend, analyze and interpret Latin prose and poetry, and to gain knowledge of the cultural, social, and political context of

the Aeneid. Students will be introduced to advanced Latin literary techniques and devices, as well as to poetic meter. It is intended for students who have a thorough knowledge of the Latin language. This course receives advanced weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Spanish I****Local Code: 55100G****Course Description:**

The course incorporates an understanding of words and expressions in varied contexts, the use of acceptable Spanish in daily classroom communications, association of written with spoken forms of the language, and written responses to questions and directed statements. The geography of Spanish-speaking countries and comparative lifestyles are also studied.

**Course Name: Spanish II****Local Code: 55200G****Prerequisite: Spanish I****Course Description:**

In this course the students focus on understanding and retaining familiar material in new contexts, refining pronunciation, stress, and intonation, reading for functional purposes, and writing guided paragraphs and dialogues. The class explores current events in Spanish-speaking countries.

**Course Name: Spanish III****Local Code: 55300G****Prerequisite: Spanish II****Course Description:**

In this course the third-year skills include dealing with increasingly advanced materials, communication of complex ideas and information in directed activities, expansion of vocabulary, and writing short compositions on assigned topics. Historical events in Spanish-speaking countries and the contributions of these people to American life are considered.

**Course Name: Spanish IV****Local Code: 55400G****Prerequisite: Spanish III****Course Description:**

In this course objectives stress more formal presentations, the use of tone, mood, and inflection as they relate to communications, developing reading skills, and written reports on assigned topics. Students also study Spanish culture in some detail.

**Course Name: Spanish V****Local Code: 55500G****Grade Level: Spanish IV****Course Description:**

In this advanced level course the students assume more responsibility for refining their communication skills, both spoken and written, practice reading with greater

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comprehension, and develop pronunciation skills. The study of Spanish culture is continued. This course receives **honors** weighted credit.

**Course Name: AP Spanish Language**

**Local Code: 55700AP or 55700VA**

**Prerequisite: Spanish IV**

**Course Description:**

This yearlong course covers the equivalent of a third-year college course in advanced Spanish writing and conversation. Emphasizing the use of Spanish for active communication, it encompasses aural/oral skills, reading comprehension, grammar, and composition. Students in this course develop language skills that are useful in themselves and that can be applied to various activities and disciplines, rather than to the mastery of any specific subject matter. Students should receive extensive training in the organization and writing of compositions as an integral part of this course. The objectives for this course are based on the College Board Advanced Placement Program and prepare students for the AP examination in Spanish. It is intended for students who have a thorough knowledge of the Spanish language. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

## FINE ARTS

**Note:** Most performing arts courses, (Theatre, Band, and Chorus) have **mandatory** performance requirements that include out-of-school hours and appropriate apparel. Students who have other commitments which would prohibit meeting these expectations should not enroll in these particular courses.

**Course Name: Theater Arts I: Introduction to Theatre**

**Local Code: 14100G**

**Course Description:**

This course is designed to provide students with a survey of theatre arts. Students are provided opportunities to experience and appreciate dramatic literature and participate in the creative processes of performance and production. The course emphasizes skill development and provides theatrical opportunities that enable students to determine areas of interest.

**Course Name: Technical Theatre (Performance Based)**

**Local Code: 14350G**

**Prerequisite: Theater Arts I or Art I**

**Course Description:**

This course focuses on the skills of technical production work for theatrical performances, including state management, set construction, lighting and sound operation and design, backstage running crews, and house management. The students will be responsible for serving as the technical crew for productions of the theater arts classes; therefore, additional after-school rehearsals and performances are required of all students.

**Course Name: Theater Arts II: Dramatic Literature and Theatre History (Performance Based)**

**Local Code: 14200G**

**Prerequisite: Theater Arts I**

**Course Description:**

This course is designed to help students integrate and build upon concepts and skills acquired in Theatre Arts I. Students will investigate dramatic literature, theatrical styles, and historical periods through various modes of expression and performance. Students will study and respond to a variety of theatre experiences that will refine communicative, collaborative, analytical, interpretive, and problem-solving skills. Students will expand artistic abilities and appreciation of theatrical arts.

**Course Name: Theater Arts III: Intermediate Acting and Playwriting (Performance Based)**

**Local Code: 14230G**

**Prerequisite: Theater Arts II**

**Course Description:**

This course is designed to help students integrate and build upon concepts and skills acquired in Theatre Arts II. Students will investigate acting styles and the process of playwriting, which includes character development, research, dramatic structure, conflict, and resolution. Students will study and respond to a variety of theatre experiences that will refine collaborative, analytical, interpretive, and problem-solving skills. Students will expand artistic abilities and appreciation of the theatrical arts.

**Course Name: Theater Arts IV: Advanced Acting and Directing (Performance Based)**

**Local Code: 14260G**

**Prerequisite: Theater Arts III**

**Course Description:**

This course is designed to help students refine the concepts and skills acquired in Theatre Arts III while reinforcing the principles learned in Theatre Arts I and II. Students will use research, performance, and evaluation to develop artistic criteria that will be applied to performance and directing. Students will study and respond to a variety of theatre experiences, showcasing collaborative, analytical, interpretive, and problem-solving skills.

**Course Name: Theatre Movement**

**Local Code: 93190G**

**Prerequisite: Theater I or Tryout/Audition**

**Course Description:**

This course is designed to help students integrate movement and dance in order to build upon concepts and skills acquired in Theatre Arts I to develop the student actor. Students will study ballet, modern and American jazz styles and incorporate them in theatrical presentations. Students will study and analyze the ways in which dance enhances theatrical presentation. Students will showcase collaborative efforts that help them to enhance characterization, conflict, and production style.

## HIGH SCHOOL COURSES

**Course Name: Art I (Foundations)****Local Code: 91200G****Course Description:**

In this course the students will study the elements of art and the principles of design. They will develop skills using a variety of media. The students will expand their imagination and work on observational drawing skills. Students will learn to analyze and critique artwork, in addition to exploring art history and aesthetics. Students will be required to maintain an art sketchbook.

**Course Name: Art II (Intermediate)****Local Code: 91300G****Prerequisite: Art I (Foundations)****Course Description:**

This course will focus on two dimensional art. Prior knowledge of the elements of art and the principles of design is expected. The students will expand their technical drawing skills, while using a wide variety of two-dimensional media. There will be an emphasis on applying and developing compositional skills while creating and using a variety of styles and techniques. Students will expand their art vocabulary and writing skills to enhance their abilities to critique works of art. They will develop interpretive skills as they study art history and analyze historical artwork. The students will begin to create a body of artwork for a portfolio. The students in this class will be required to maintain an art sketchbook.

**Course Name: Art III (Advanced Intermediate)****Local Code: 91400G****Prerequisite: Art II (Intermediate)****Course Description:**

This course will focus on three-dimensional art. Prior knowledge of the elements of art and the principles of design is expected of the students. There will be an emphasis on applying the design principles to further develop compositional skills in creating three-dimensional artwork. The students will explore a variety of three-dimensional art media. They will further expand their vocabulary and writing skills through the exploration of art history and three-dimensional artists. They will create three-dimensional artwork suitable for a portfolio. This class will require maintaining an art sketchbook.

**Course Name: Art IV (Advanced)****Local Code: 91450G****Prerequisite: Art III (Advanced Intermediate)****Course Description:**

In the course the students should be motivated to prepare a body of work for a college portfolio or to prepare for AP Studio Art. There should be a commitment to rigorous completion of quality artwork and to create artwork outside of the class. Students will determine and explore an area of concentration focusing on a personal visual interest or problem. The students will be expected to demonstrate a proficiency in formal, technical, and expressive means within the artwork. They will expand

vocabulary and writing skills, while applying analytical skills. This class will require maintaining an art notebook. In addition, the students will create and maintain a body of work for a portfolio.

**Course Name: Art V (Studio Art)****Local Code: 91470G****Prerequisite: any three art classes****Course Description:**

This course is designed as an independent study in which students continue to reinforce competence and confidence in their artwork. Students will be required to demonstrate mastery through a portfolio that shows concentration, breadth of experience, and technical skills. Students who enroll in Art V are generally planning to pursue visual arts as a major in college. This class will provide the students an opportunity to build a portfolio that includes some of the expectations of the college or university which they plan to attend.

**AP Studio Art:**

**The courses are yearlong and designed to provide students with a learning experience equivalent to that of an introductory college course in studio art foundation. Each course enables students to develop a body of work investigating a strong underlying visual idea in Drawing, 2-D Design, or 3-D Design that grows out of a coherent plan of action or investigation (i.e., a “concentration”). Students should be aware that these classes require advanced artistic technical knowledge and skills. There should be a commitment to rigorous completion of quality artwork inside and outside of class. Students will explore areas of personal quality within the artwork. They will determine and explore an area of concentration focusing on a personal visual interest or problem. The students will be expected to demonstrate a proficiency in formal, technical, and expressive means within the artwork. They will expand vocabulary and writing skills, while applying analytical skills. The classes will require maintaining an art notebook. In addition, the students will complete a body of work for the required AP Portfolio. Students will submit a portfolio to the College Board that demonstrates mastery of the skills and concepts in the area of concentration.**

**Course Name: AP Studio Art: 2-D Design Concentration****Local Code: 91480AP or 91480VA****Prerequisite: Art IV****Course Description:**

This portfolio is intended to address two-dimensional (2-D) design issues. Design involves purposeful decision making about how to use the elements and principles of art in an integrative way. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, figure/ground relationships) can be articulated through the visual elements (line, shape, color, value, texture, space). They help guide artists in making decisions about how to organize an image on a picture

## HIGH SCHOOL COURSES

plane in order to communicate content. Effective design is possible whether one uses representational or abstract approaches to art. For this portfolio, students are asked to demonstrate mastery of 2-D design through any two-dimensional medium or process, including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting and printmaking. Video clips, DVDs, CDs and three-dimensional works may not be submitted. However, still images from videos or films are accepted. Links to samples of student work in the 2-D Design portfolio can be found at [apcentral.collegeboard.com/studio2D](http://apcentral.collegeboard.com/studio2D). This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP Studio Art: 3-D Design Concentration**

**Local Code: 91490AP or 91490VA**

**Prerequisite: Art IV**

**Course Description:**

This portfolio is intended to address sculptural issues. Design involves purposeful decision making about using the elements and principles of art in an integrative way. In the 3-D Design Portfolio, students are asked to demonstrate their understanding of design principles as they relate to the integration of depth and space, volume and surface. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, and occupied/unoccupied space) can be articulated through the visual elements (mass, volume, color/light, form, plane, line, texture). For this portfolio, students are asked to demonstrate mastery of 3-D design through any three-dimensional approach, including, but not limited to, figurative or nonfigurative sculpture, architectural models, metal work, ceramics, glass work, installation, assemblage and 3-D fabric/fiber arts. There is no preferred (or unacceptable) style or content. Links to samples of student work in the 3-D Design portfolio can be found at [apcentral.collegeboard.com/studio3D](http://apcentral.collegeboard.com/studio3D). This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP Studio Art: Drawing Portfolio**

**Local Code: 91500AP or 91500VA**

**Prerequisite: Art IV**

**Course Description:**

The Drawing Portfolio is intended to address a very broad interpretation of drawing issues and media. Line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making are drawing issues that can be addressed through a variety of means, which could include painting, printmaking, mixed media, etc. Abstract and observational works may demonstrate drawing competence. The range of marks used to make drawings, the arrangement of those marks, and the materials used to make the marks are endless. There is no preferred (or unacceptable) style or content. Any work submitted in the Drawing Portfolio that incorporates digital or photographic processes must

address issues such as those listed above. Using computer programs merely to manipulate photographs through filters, adjustments or special effects is not appropriate for the Drawing Portfolio. Links to student work in the Drawing portfolio can be found at [apcentral.collegeboard.com/studio](http://apcentral.collegeboard.com/studio) drawing. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: AP Art History**

**Local Code: 91510AP or 91510VA**

**Course Description:**

This yearlong course exposes students to a comprehensive study of the history of art. The course includes study of architecture, painting, sculpture, and other art forms, within cultural and historical contexts. Students will examine the major forms of artistic expression in the past and present, including our own and that of other cultures. Students will learn to express opinions, conduct research, and to compare and contrast styles verbally and in writing. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Concert Band I (Performance Based)**

**Local Code: 92320G**

**Prerequisite: Middle School Band or Audition**

**Course Description:**

In this course students will continue to develop their musicianship and music literacy. Students will perform ascending and descending scales in various key signatures and develop ensemble skills. Students will refine ability to produce a controlled tonal quality, and broaden their knowledge of musical terms.

**Course Name: Concert Band II (Performance Based)**

**Local Code: 92330G**

**Prerequisite: Concert Band I or Audition**

**Course Description:**

In this course students will continue to refine individual and ensemble skills and perform a variety of musical works. Students will practice expressive elements of phrasing and style in individual and group performances. Students will demonstrate expanded technical proficiency, discuss interpretations of musical selections, and identify career and vocational choices in music.

**Course Name: Concert Band III (Performance Based)**

**Local Code: 92340G**

**Prerequisite: Concert Band II or Audition**

**Course Description:**

Students will continue to refine individual and ensemble skills and perform a variety of musical works. Students will practice expressive elements of phrasing and style in individual and group performances. Students will demonstrate expanded technical proficiency, discuss interpretations of musical selections, and identify career and vocational choices in music.

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**Course Name: Concert Band IV (Performance Based)****Local Code: 92440G****Prerequisite: Concert Band III or Audition****Course Description:**

In this course students will continue to refine individual and ensemble skills and perform a variety of musical works. Students will practice expressive elements of phrasing and style in individual and group performances. Students will demonstrate expanded technical proficiency, discuss interpretations of musical selections, and identify career and vocational choices in music.

**Course Name: Symphonic Band I (Performance Based)****Local Code: 92370G****Prerequisite: Concert Band I or Audition****Course Description:**

In this course students will develop ensemble skills and develop fluency in tone quality with a variety of articulations at various tempos. Students will perform complex meters and rhythmic patterns. Students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Symphonic Band II (Performance Based)****Local Code: 92380G****Prerequisite: Symphonic Band I or Audition****Course Description:**

In this course students will develop individual skills through all major scales. Percussion students will play 26 drumming rudiments. Students will identify key signatures and apply to all music being performed. Students will play with accurate melodic and harmonic intonation. Students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Symphonic Band III (Performance Based)****Local Code: 92390G****Prerequisite: Symphonic Band II or Audition****Course Description:**

In this course students will experience music literature of various styles, composers and compositional techniques congruent with the Virginia Band and Orchestra Directors Association (VBODA) Grade levels 5 and 6 Literature. Students will interpret music within a historical perspective and style and demonstrate sight-reading skills in moderately advanced rhythmic structures and keys. Students will play with accurate melodic and harmonic intonation. Students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Symphonic Band IV (Performance Based)****Local Code: 92420G****Prerequisite: Symphonic Band III or Audition****Course Description:**

In this course students will exhibit artist level technical and expressive skills. Students will experience music literature of various styles, composers and compositional techniques congruent with the Virginia Band and Orchestra Directors

Association (VBODA) Grade levels 5 and 6 Literature. They will contribute to ensemble rehearsals by discussing solutions for musical problems encountered. Students will demonstrate a positive attitude toward music, self-discipline, group cooperation and the highest levels of leadership. Students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Jazz Band I (Performance Based)****Local Code: 92500G****Course Description:**

In this course the primary focus is the preparation and performance of the finest jazz and popular literature. The further advancement of musical skills, both individual and ensemble, will be paramount to the success of the student and the organization. Great emphasis is placed on individual musical responsibility and the development of the jazz idiom and improvisation. Members of the Jazz Band are expected to prepare and perform as the pit orchestra for the school musical. Students in this class are expected to perform with all other performing groups as needed. There will be out-of-school time required for rehearsals and performances. Course goals will include public performances and students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Jazz Band II (Performance Based)****Local Code: 92520G****Course Description:**

In this course the primary focus is the preparation and performance of the finest jazz and popular literature. The further advancement of musical skills, both individual and ensemble, will be paramount to the success of the student and the organization. Great emphasis is placed on individual musical responsibility and the development of the jazz idiom and improvisation. Members of the Jazz Band are expected to prepare and perform as the pit orchestra for the school musical. Students in this class are expected to perform with all other performing groups as needed. There will be out-of-school time required for rehearsals and performances. Course goals will include public performances and students will be provided opportunities to participate in local, district, regional and state events.

**Course Name: Guitar I****Local Code: 92450G****Course Description:**

In this course the students will learn basic guitar skills including identifying parts of the guitar, the history and how to tune by ear. They will begin to read music and learn basic strumming techniques with a pick. Students will learn to play open chords and arpeggios using just their fingers.

## HIGH SCHOOL COURSES

**Course Name: Guitar II****Local Code: 92470G****Prerequisite: Guitar I or instructor approval by audition****Course Description:**

In this course the students will continue to develop guitar skills in playing chords, scales, and music theory. Additional scales, chords, and playing styles will be explored. Students will have the opportunity for more solo and ensemble performances in and outside of class.

**Course Name: AP Music Theory****Local Code: 92260AP or 92260VA****Prerequisite: Intermediate Band II; strong background in musical concepts, entry exam, and audition****Course Description:**

This is a yearlong course. The ultimate goal of an Advanced Placement Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of this goal may be best promoted by integrated approaches to the student's development of: aural skills listening exercises, sight-singing skills performance exercises, written skills through written exercises, compositional skills creative exercises, and analytical skills analytical exercises. The course should seek first to instill mastery of the rudiments and terminology of music, including hearing and notating: pitches, intervals, scales and keys, chords, meter, and rhythm. Students will learn these basic concepts through listening to a wide variety of music, including not only music from standard Western tonal repertoire but also twentieth-century art music, jazz, popular music, and the music of non-Western cultures. Students will work on the acquisition of correct notational skills, as well as developing speed and fluency with basic materials. Students will be required to read, notate, write, sing, and listen to music. Performance – using singing, keyboard, and students' primary performance media – will also be a part of the learning process. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

**Course Name: Beginning Chorus I (Performance Based)****Local Code: 92601G****Course Description:**

This course focuses on beginning vocal techniques, reading and writing basic musical notation, critiquing musical events, following conducting, and singing unison and harmony. Students will perform selections representing contrasting periods and styles.

**Course Name: Beginning Chorus II (Performance Based)****Local Code: 92602G****Prerequisite: Beginning Chorus I or audition****Course Description:**

In this course the study of beginning vocal techniques is continued. Students also incorporate expressive qualities

into their singing, and learn the importance of contributing to group goals.

**Course Name: Intermediate Chorus I (Performance Based)****Local Code: 92851G****Prerequisite: Beginning Chorus II or audition****Course Description:**

In this course students will develop tone quality and intonation, and will read and sight-sing notation of simple patterns. They will demonstrate expected rehearsal decorum and appropriate attitude. Students will use expressive qualities of dynamics, tempo, blend, and balance in group performance. Placement in this course will be based on skill level and teacher recommendation.

**Course Name: Intermediate Chorus II (Performance Based)****Local Code: 92852G****Prerequisite: Intermediate Chorus I or audition****Course Description:**

In this course students will sing music containing three or more parts. They will identify phonal textures, basic musical terms, and simple structural forms. Students will demonstrate improvisational skills and develop an awareness of career and vocational opportunities in music. Placement in this course will be based on skill level and teacher recommendation.

**Course Name: Advanced Chorus I (Performance Based)****Local Code: 92891G****Prerequisite: Intermediate Chorus II or audition****Course Description:**

In this course students will develop a command of vocal production and intonation appropriate for the level of music being studied. They will refine expression and interpretive skills. Students will demonstrate appropriate posture and breathing techniques.

**Course Name: Advanced Chorus II (Performance Based)****Local Code: 92892G****Prerequisite: Advanced Chorus I or audition****Course Description:**

In this course students will sight-sing in a variety of keys and meters. They will write pitch and rhythmic notation of melodies of two or more phrases. Students will sing music containing four or more parts.

**Course Name: Advanced Chorus III (Performance Based)****Local Code: 92893G****Prerequisite: Advanced Chorus II or audition****Course Description:**

In this course students will respond to complex conducting patterns and interpretive gestures. They will name various compositional devices in music. Students will perform selections of all major periods and make informed choices of music from varied cultural and ethnic origins. Placement

## HIGH SCHOOL COURSES

in this course will be based on skill level and teacher recommendation.

**Course Name: Advanced Chorus IV (Performance Based)**

**Local Code: 92894G**

**Prerequisite: Advanced Chorus III or audition**

**Course Description:**

In this course students will use appropriate musical vocabulary, and critique a variety of musical performances. They will demonstrate knowledge of form and structure in a given choral score. Students will explore and discuss careers and vocational opportunities in music. Placement in this course will be based on skill level and teacher recommendation.

## CAREER AND TECHNICAL EDUCATION

### AGRICULTURAL EDUCATION

**Course Name: Introduction to Plant Systems**

**Local Code: 80070G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8022, 8024, 8026, 8034, 8035**

**Course Description:**

Students develop competencies in each of the major areas of the Plant Systems career pathway including applied botany, plant propagation, plant care and selection. Instructional content also includes an introduction to the various divisions of the plant systems industry. Students learn agricultural mechanics applicable to plant systems. As with all agriculture courses, students will be exposed to principles of leadership and opportunities within student organizations along with Supervised Agricultural Experiences opportunities.

**Course Name: Horticulture Sciences**

**Local Code: 80340G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8022, 8024, 8026, 8035**

**Course Description:**

In this course, students develop the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They receive instruction in using soil and other plant-growing media and in identifying, propagating, and growing horticultural plants in the greenhouse and land laboratory. Instruction is provided in safety practices and leadership development.

**Course Name: Greenhouse Plant Production and Management**

**Local Code: 80350G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8007, 8022, 8024, 8026, 8034**

**Prerequisite: Horticulture Sciences**

**Course Description:**

Students are taught the operating procedures for a greenhouse. Units of instruction include developing plant

production facilities, science application in plant production, and identification of plants. Business management, leadership development, and marketing skills are emphasized to prepare students for careers in the greenhouse plant production and management industry.

**Course Name: Introduction to Animal Systems**

**Local Code: 80080G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8083, 8084**

**Course Description:**

Students develop competencies in each of the major areas of the Animal Systems career pathway including animal nutrition, reproduction, breeding, care, and management. Students learn agricultural mechanics applicable to animal systems. As with all agriculture courses, students will be exposed to principles of leadership and opportunities within student organizations along with Supervised Agricultural Experience opportunities.

**Course Name: Small Animal Care I**

**Local Code: 80830G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8008, 8084**

**Course Description:**

Students learn how to care for and manage small animals, focusing on instructional areas in animal health, nutrition, management, reproduction, and evaluation. Course content also includes instruction in the tools, equipment, and facilities for small animal care, and provides activities to foster leadership development. FFA and SAE activities are encouraged.

**Course Name: Small Animal Care II**

**Local Code: 80840G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8008, 8083**

**Prerequisite: Small Animal Care I**

**Course Description:**

Students advance their skills in the care and management of small animals, focusing on specific needs of various breeds. Instruction includes handling animals and grooming/caring for coats, as well as technical and maintenance functions related to animal health. The course also includes office-management instruction and affords students the opportunity to practice leadership skills. FFA and SAE activities are encouraged.

**Course Name: Introduction to Power, Structural, and Technical Systems**

**Local Code: 80160G**

**Course Location: WHS**

**Concentration Sequence: 8024, 8026**

**Course Description:**

Throughout this introductory level Agricultural Power course, students will receive instruction in the areas of basic engine principles, power trains, hydraulics, and

## HIGH SCHOOL COURSES

electrical systems. The course will also address the areas of building structures, metal fabrication, and precision agricultural management.

**Course Name: Agricultural Business Operations**

**Local Code: 80240G**

**Course Location: WHS**

**Concentration Sequence: 8007, 8016, 8026, 8035**

**Course Description:**

In this course the curriculum emphasizes off-farm agricultural occupations, business procedures, merchandising, marketing, and agricultural business management. Instruction is provided in agricultural product knowledge and mechanics, plant science, and leadership development. Students participate in cooperative, on-the-job training programs with local agricultural businesses.

**Course Name: Agricultural Business Management**

**Local Code: 80260G**

**Course Location: WHS**

**Concentration Sequence: 8007, 8016, 8024, 8035**

**Course Description:**

This course provides further opportunities for the development of business procedures, management techniques, and agricultural product knowledge. Leadership skills continue to be developed. This class is operated on a cooperative, on-the-job training basis with local agricultural businesses.

### BUSINESS AND INFORMATION TECHNOLOGY

Any two of the following occupational classes will constitute a business completer and/or concentrator. Participation in the student organization Future Business Leaders of America (FBLA) is an expectation.

**Course Name: Information Technology (IT) Fundamentals**

**Local Code: 66700G**

**Concentration Sequence: 6612, 6613, 6630, 6640, 6641, 6660, 6661**

**Course Description:**

In this course 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.

**Course Name: Programming**

**Local Code: 66400G**

**Concentration Sequence: 6612, 6613, 6630, 6660, 6661, 6641, 6670**

**Course Description:**

Students in the programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ html or java script to create web pages. Students develop their employability skills through a variety of activities.

**Course Name: Advanced Programming**

**Local Code: 66410G**

**Prerequisite: Programming**

**Concentration Sequence: 6612, 6613, 6630, 6640, 6660, 6661, 6670**

**Course Description:**

Building on their foundation of programming skills, Advanced Programming students use object-oriented programming to develop database applications, interactive multimedia applications including game applications, mobile applications, and Web applications. Students continue to develop their employability skills as they research pathways for continuing education and careers in the information technology industry and engage in various career-building activities.

**Course Name: Database Design and Management**

**Local Code: 66600G**

**Concentration Sequence: 6612, 6613, 6640, 6641, 6661, 6670**

**Prerequisite: (Recommended by VDOE) IT Fundamentals**

**Course Description:**

This course includes database design and Structured Query Language (SQL) programming. Students study database fundamentals, including database development, modeling, design, and normalization. In addition, students are introduced to database programming. Students gain the skills and knowledge needed to use features of database software and programming to manage and control access to data. Students will prepare for the first of two certification exams.

**Course Name: Advanced Database Design and Management**

**Local Code: 66618G**

**Concentration Sequence: 6612, 6613, 6640, 6641, 6660, 6670**

**Prerequisite: Database Design and Management**

**Course Description:**

Students study Java, a widely used object-oriented, class-based, general-purpose programming language, to create and manipulate database applications. Instruction will emphasize preparation for industry certification.

## HIGH SCHOOL COURSES

### **Course Name: Economics and Personal Finance:**

#### **Independent Study**

**Local Code: 61200IV**

#### **Course Description:**

In this course students learn how to navigate the financial decisions they must face and 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. **This course will be completed online outside the traditional school day (i.e., student's home) using Virtual Virginia modules. This course is graded on a Pass/Fail scale.**

### **Course Name: Economics and Personal Finance: School Day**

**Local Code: 612005V**

**Grade Level: 12**

#### **Course Description:**

In this course students learn how to navigate the financial decisions they must face and 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. **This course will be completed online at school with a mentor using Virtual Virginia modules. This course is graded on a Pass/Fail scale.**

### **Course Name: Economics and Personal Finance: Virtual Virginia Program**

**Local Code: 61200VA**

**Grade Level: 12**

#### **Course Description:**

In this course students learn how to navigate the financial decisions they must face and 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. **This course will be completed online at school through the Virtual Virginia Program (The student will have a Virtual Virginia teacher). Must get special permission to enroll in this course. This course is graded on a Pass/Fail scale.**

### **CAREER CONNECTIONS**

**Career Connections** is the area designed to help students prepare for careers and continuing education in a challenging and rapidly changing workplace. This service area provides connecting links for students in pursuit of

career development and related career information resources.

### **Course Name: Virginia Teachers for Tomorrow I**

**Local Code: 90620DE or 90620G**

**Concentration Sequence: 8234, 9072**

#### **Course Description:**

The Virginia Teachers for Tomorrow course introduces juniors and seniors to a career in teaching and education. The primary elements of the curriculum components are *the learner, the school, and the teacher and teaching*. The components are intentionally broad in scope and provide a great deal of flexibility based on the career interest of a student. In addition to the fundamental curriculum components, all students are required to participate in an internship outside the teacher cadet classroom. The internship may involve the pre-school level through grade 12. This course has a dual enrollment option. **To enroll in the dual enrollment course, the student must complete the VPT for Math and English and meet the criteria established by PDCCC.** The dual enrollment course will use the **PDCCC grading scale.**

### **Course Name: Virginia Teachers for Tomorrow II**

**Local Code: 90720DE or 90720G**

**Concentration Sequence: 9062**

**Prerequisite: Virginia Teachers for Tomorrow I**

#### **Course Description:**

In this course students continue to explore careers in the Education and Training 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. This course has a dual enrollment option. **To enroll in the dual enrollment course, the student must complete the VPT for Math and English and meet the criteria established by PDCCC.** The dual enrollment course will use the **PDCCC grading scale.**

### **FAMILY AND CONSUMER SCIENCE**

Participation in the student organization Family, Career, and Community Leaders of America (FCCLA) is an expectation.

### **Course Name: Introduction to Culinary Arts**

**Local Code: 82500G**

#### **Course Description:**

This is a transition-focused course. Food occupations competencies focus on identifying and exploring individual careers within the food service industry. Units of study include food science and technology, dietetics and nutrition services, contemporary cuisines and service styles, food and beverage production and preparation, and food safety and sanitation. Teachers highlight basic skills of math, science, and communication, when appropriate, in the content.

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**Course Name: Culinary Arts I****Local Code: 82758G****Course Location: SHS (maximum enrollment is 20)****Concentration Sequence: 8219, 8229, 8250, 8276****Course Description:**

The Culinary Arts I curriculum provides students with the foundations for a comprehensive knowledge of the food service industry and with opportunities to build technical skills. Students examine and practice basic rules and procedures related to kitchen and food safety, kitchen sanitation procedures, and emergency measures. Students explore the purchasing and receiving of goods and study fundamental nutritional principles and guidelines. As they explore food-preparation techniques, students practice applying these techniques to the preparation and serving of basic food products. The curriculum places a strong emphasis on science and mathematics knowledge and skills.

**Course Name: Culinary Arts II****Local Code: 82768G****Course Location: SHS (maximum enrollment is 20)****Concentration Sequence: 8275****Prerequisite: Culinary Arts I****Course Description:**

The Culinary Arts II curriculum provides students with continuing opportunities to acquire a comprehensive knowledge of the food service industry as well as to expand their technical skills. Students practice kitchen safety and sanitation, apply nutritional principles to food preparation and storage, perform a wide range of more advanced food-preparation techniques including garde manger and baking, refine their dining room serving skills, develop menus, perform on-site and off-site catered functions, and strengthen their business and math skills. The curriculum continues to place a strong emphasis on science and mathematics knowledge and skills.

### MARKETING

**Course Name: Sports, Entertainment, and Recreation Marketing****Grade Level: 10 - 12****Local Code: 81750DE or 81750G****Course Location: SHS****Concentration Sequence: 8110, 8120, 8130, 8177****Course Description:**

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation 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. This PDCCC dual enrollment course aligns with MKT 100. **Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course. The student must be 16 years old to complete CTE certification.**

**Course Name: Advanced Sports, Entertainment, and Recreation Marketing****Grade Level: 11 - 12****Local Code: 81770DE or 81770G****Course Location: SHS****Concentration Sequence: 8175****Prerequisite: Sports, Entertainment, and Recreation Marketing****Course Description:**

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, and legal concepts. Students will be able to plan and execute an event, develop a career plan, and establish a sports, entertainment, or recreation marketing product/business. 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. This PDCCC dual enrollment course aligns with MKT 209. **Student must complete the VPT for Math and English and/or meet the criteria established by PDCCC to enroll in course.**

**Course Name: Marketing Co-op****Local Code: 81991G****Prerequisite: Approved participation by teacher and principal****Course Description:**

This is supervised on-the-job instruction course that requires a minimum of 396 co-op hours. A training agreement must be signed by the student, parent, employer, and teacher. Students must pass Marketing to receive credit for Co-op.

**Course Name: Advanced Marketing Co-op****Local Code: 81992G****Prerequisite: Approved participation by teacher and principal****Course Description:**

This is supervised on-the-job instruction course that requires a minimum of 396 co-op hours. A training agreement must be signed by the student, parent, employer, and teacher. Students must pass Advanced Marketing to receive credit for Co-op.

### MEDICAL AND HEALTH SCIENCES

**Course Name: Nurse Aide I****Local Code: 83608G****Course Location: SHS (maximum enrollment is 20)**

## HIGH SCHOOL COURSES

### **Concentration Sequence: 8362**

#### **Course Description:**

Nurse Aide I, offered as an occupational preparation course beginning at the 11th-grade level, emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive elementary skill training in patient-nursing assistant relationships; taking and recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes. Limited on-the-job instruction in nursing homes and hospitals is part of the course. This course can be used as an introduction to practical nursing or to prepare the student for Nurse Aide II so that all competencies for a certified nursing assistant are met. **This course will be double blocked.**

#### **Course Name: Nurse Aide II**

**Local Code: 83628G**

**Course Location: SHS (maximum enrollment is 20)**

**Prerequisite: Nurse Aide I**

**Concentration Sequence: 8360**

#### **Course Description:**

Nurse Aide II is an occupational preparation course, emphasizing advanced skill training in areas such as catheter care, range of motion, bowel and bladder training, care of the dying, selected procedures for maternal and infant care, and admission and discharge procedures. Students learn diseases and body systems as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and the elderly. On-the-job instruction in a licensed nursing home is part of the course. Upon completion of the nurse aide program, the student is eligible to take the nurse aide certification exam that leads to employment as a certified nurse aide in hospitals and nursing homes. **This course will be double blocked.**

#### **Course Name: Emergency Medical Technician I**

**Local Code: 83338G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8334**

**Prerequisite: Students must be at least 16 years old prior to the first day of EMT instruction.**

#### **Course Description:**

The tasks for this course represent the National Emergency Medical Services Educational Standards. 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. Supervised field experience outside of school hours is required. Successful completion of this course and instructor endorsement qualifies students to enroll in EMT II to complete the program sequence. Successful

completion of the second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam. **This course will be double blocked.**

#### **Course Name: Emergency Medical Technician II**

**Local Code: 83348G**

**Course Location: WHS (maximum enrollment is 20)**

**Concentration Sequence: 8333**

**Prerequisite: Students must be at least 16 years old prior to the first day of EMT instruction and Emergency Medical Technician I**

#### **Course Description:**

The tasks for this course represent the National Emergency Medical Services Educational Standards. Students build on their knowledge and skills for providing basic life support by focusing on the areas of emergency medical services (EMS) operations, medical emergencies, and management of special patient populations. Supervised field experience outside of school hours is required. Successful completion of this second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam. **This course will be double blocked.**

### **TECHNOLOGY EDUCATION**

#### **Course Name: Engineering Explorations I**

**Local Code: 84500G**

**Concentration Sequence: 8451, 8452**

#### **Course Description:**

In this course Engineering Explorations will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students will be exposed to a variety of engineering specialty fields and related careers to determine whether they are good candidates for postsecondary educational opportunities in engineering. Students will gain a basic understanding of engineering history and design, using mathematical and scientific concepts. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports.

#### **Course Name: Engineering Analysis and Applications II**

**Local Code: 84510G**

**Concentration Sequence: 8450, 8452**

**Prerequisite: Engineering Explorations I**

#### **Course Description:**

## HIGH SCHOOL COURSES

Engineering Analysis and Applications II is the second of a possible four-course sequence that will allow students to apply the engineering design process to areas of the designed world, explore ethics in a technological world, and examine systems in civil, mechanical, electrical, and chemical engineering. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports.

**Course Name: Engineering Concepts and Processes III**

**Local Code: 84520G**

**Concentration Sequence: 8450, 8451, 8453**

**Prerequisite: Engineering Analysis and Applications II**

**Course Description:**

Engineering Concepts and Processes III is the third course of a four-course sequence that will enable students to solve real-world problems. This course focuses on building an engineering team, working with case studies, managing projects, applying logic and problem-solving skills, delivering formal proposals and presentations, and examining product and process trends. In addition, students continue to apply their engineering skills to determine whether they are good candidates for post-secondary educational opportunities in engineering. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports.

**Course Name: Engineering Practicum IV**

**Local Code: 84530G**

**Concentration Sequence: 8452**

**Prerequisite: Engineering Concepts and Processes III**

**Course Description:**

This course will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students examine ethics and intellectual property and design a practicum project, a culmination of knowledge and skill gained in the previous engineering courses. In addition, students continue to investigate a variety of engineering specialty fields and related careers to determine whether they are good candidates for post-secondary educational opportunities in engineering.

**Course Name: Manufacturing Systems Technology I:**

**Maker Space**

**Local Code: 84250G**

**Course Location: SHS (maximum enrollment is 20)**

**Concentration Sequence: 8427**

**Course Description:**

This course provides an orientation to careers in various fields of manufacturing. Emphasis will be placed on manufacturing systems, safety, materials, production, business concepts, and the manufacturing process. Students participate in individual and team activities to

create products that demonstrate critical elements of manufacturing.

**Course Name: Manufacturing Systems Technology II:**

**Maker Space**

**Local Code: 84270G**

**Course Location: SHS (maximum enrollment is 20)**

**Concentration Sequence: 8425**

**Prerequisite: Manufacturing Systems Technology I**

**Course Description:**

Students develop an in-depth understanding of automation and its applications in manufacturing. Activities center on flexible manufacturing processes and computer integrated manufacturing (CIM). Students work in teams to solve complex interdisciplinary problems that stem from the major systems in automated manufacturing.

### MILITARY SCIENCE

Windsor High School students may participate by enrolling at Smithfield High School. Transportation must be provided by the student/parent.

**Course Name: Military Science I - (Army JROTC I)**

**Local Code: 79130G**

**Course Description:**

This course emphasized knowledge of the structure of the Army, basic military skills in drill and ceremonies, the ability to think logically, leadership characteristics, and American military history. JROTC objectives are taught and tested.

**Course Name: Military Science II - (Army JROTC II)**

**Local Code: 79160G**

**Prerequisite: Military Science I**

**Course Description:**

This course focuses on leadership theory, drill and ceremonies, hygiene and first aid, and map reading skills. It emphasizes citizenship, communication skills, and self-image.

**Course Name: Military Science III - (Army JROTC III)**

**Local Code: 79180G**

**Prerequisite: Military Science II**

**Course Description:**

This course emphasizes military life and staff responsibility, leadership assessment principles, counseling and the federal and military systems of justice, physical fitness, good health, and appearance. JROTC objectives are taught and tested.

**Course Name: Military Science IV - (Army JROTC IV)**

**Local Code: 79190G**

**Prerequisite: Military Science III**

**Course Description:**

## HIGH SCHOOL COURSES

This course is recommended for students with an above-average JROTC history who plan to pursue college-level ROTC or military service. JROTC objectives are taught and tested.

**Course Name: Military Science V – Leadership**

**Local Code: 79200G**

**Prerequisite: Military Science IV**

**Course Description:**

This course is recommended for juniors and seniors with an above-average JROTC history who plan to pursue college-level ROTC or military service. JROTC objectives are taught and tested. This expanded curriculum concentrates in the areas of leadership development and advanced staff development, with most of the contact hours devoted to the development of advanced leadership technique.

**Course Name: Military Science VI – Leadership**

**Local Code: 79220G**

**Prerequisite or Grade Level: Military Science V - Leadership**

**Course Description:**

This course is recommended for juniors and seniors with an above-average JROTC history who plan to pursue college-level ROTC or military service. JROTC objectives are taught and tested. This expanded curriculum concentrates in the areas of leadership development and advanced staff development, with most of the contact hours devoted to the development of advanced leadership technique.

**Course Name: Military Science VII -Leadership**

**Local Code: 79240G**

**Prerequisite or Grade Level: Military Science VI**

**Course Description:**

This course is recommended for seniors with an above-average JROTC history who plan to pursue college-level ROTC or military service. JROTC objectives are taught and tested. This expanded curriculum concentrates in the areas of leadership development, advanced staff development, service learning, drill and ceremony, etiquette, and customs and courtesies with most of the contact hours devoted to the development of advanced leadership technique.

**Course Name: Military Science VIII – Leadership**

**Local Code: 79260G**

**Prerequisite: Military Science VII**

**Course Description:**

This course is recommended for seniors only with an above-average JROTC history who plan to pursue college-level ROTC or military service. JROTC objectives are taught and tested. This expanded curriculum concentrates in the areas of leadership development, advanced staff development, service learning, drill and ceremony, etiquette, and customs and courtesies with most of the contact hours devoted to the development of advanced leadership technique.

## OTHER COURSES

**Course Name: Occupational Orientation I**

**Local Code: 78881S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to teach/reinforce work adjustment and other skills needed for career awareness that leads to responsible participation in the world of work as outlined on the student's IEP. This course may be continued.

**Course Name: Occupational Orientation II**

**Local Code: 78882S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for identified students with disabilities is designed to assist in understanding, changing, and improving specific work behaviors that will assist them achieve success in a vocational training program or in the Job Coach Program. Related functional academic skills are taught in the classroom to support attainment of the work behaviors. This course may be continued.

**Course Name: Independent Living Skills I**

**Local Code: 78961S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for students with disabilities is designed to develop, strengthen, or reinforce basic adaptive skill areas as outlined on the student's IEP. This course may be continued.

**Course Name: Independent Living Skills II**

**Local Code: 78962S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for students with disabilities is designed to reinforce basic adaptive skill areas needed for independent living as outlined on the student's IEP. This course may be continued.

**Course Name: Study Skills I**

**Local Code: 22061S**

**Grade Level: 9, 10, 11 and 12**

**Course Description:**

This individualized instructional course for identified students with disabilities develops, strengthens, or reinforces the skills which have been shown to be areas of concern through curriculum-based assessment and which are outlined on the student's IEP. In addition to academic skills, social and transition skills are addressed. This course may be continued.

**Course Name: Study Skills II**

**Local Code: 22063S**

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### **Grade Level: 9, 10, 11 and 12**

#### **Course Description:**

This individualized instructional course for identified students with disabilities further reinforces the skills which have been shown to be areas of concern through curriculum-based assessment and which are outlined on the student's IEP. In addition to academic skills, social and transition skills are addressed. This course may be continued.

#### **Course Name: Reading Strategies I**

##### **Local Code:**

### **Grade Level: 9, 10, 11 and 12**

#### **Course Description:**

This individualized instructional course is a combination of direct reading instruction and study skills designed for students with disabilities who are working toward a standard diploma and have not reached the level of "adult literacy" as determined by testing conducted by division staff and outlined in the student's IEP. This course may be continued.

#### **Course Name: Reading Strategies II**

##### **Local Code:**

### **Grade Level: 9, 10, 11 and 12**

#### **Course Description:**

This individualized instructional course further reinforces reading and study skills through a combination of direct reading instruction and study skills designed for students with disabilities who are working toward a standard diploma and have not reached the level of "adult literacy" as determined by testing conducted by division staff and outlined in the student's IEP. This course may be continued.

This class covers objectives at a more relaxed pace to better ensure mastery of skills. High school credit is awarded and the grade becomes a part of the high school Grade Point Average (GPA). This course is for a student who has credit accommodations identified in his/her IEP or 504 plan.

## **The Pruden Center for Industry and Technology**

In addition to the yearlong courses listed below, The Pruden Center for Industry and Technology has developed the program **FIRST (Fostering Innovation and Relevance through STEM and Trades)** which is one of the twenty-three Governor's STEM Academies in Virginia. **FIRST** is a part of the instructional program and students may apply to become cadets to one of the following Schools: Technology, Health Careers, Human Services, Auto Technology and Construction Trades. Enhanced instructional programs focus on the integration of academics and CTE, career development/guidance services, work-based learning offerings, industry credential

opportunities, and transition agreements, thus creating a seamless transition to post-secondary education and/or high-demand, high-wage, high-skill employment. Additionally, programs of study for FIRST Academy students will offer: *monthly focus sessions taught by industry experts, enhanced career planning/development, and the student-generated Completer Project model.*

## **TRADE AND INDUSTRIAL EDUCATION**

#### **Course Name: Auto Body Technology I (Collision and Repair – Certified)**

##### **Local Code: 86760G**

#### **Course Name: Auto Body Technology II (Painting and Refinishing – Certified)**

##### **Local Code: 86770G**

#### **Course Description:**

The two-year program provides the knowledge and hands-on experience needed to perform basic body repairs on today's automobiles, and to apply paint and other types of finishes to the repaired vehicle body. The curriculum for this program is designed to prepare students for basic Automotive Service Excellence (ASE) certification.

#### **Course Name: Automotive Service Technology - ASE Certified I**

##### **Local Code: 85060G**

#### **Course Name: Automotive Service Technology - ASE Certified II**

##### **Local Code: 85070G**

#### **Course Description:**

In this two-year program, students learn to repair fuel, electrical, cooling, brake, drive train, and suspension systems. Instruction is also provided in the adjustment and repair of individual components and systems, such as radiators, transmissions, and carburetors. Theory is taught through class assignments, discussions, and shop practice, while hands-on skills are developed through practical shop work. The curriculum for this program is provided by the National Automotive Technician Education Foundation (NATEF) and is designed to prepare students for basic Automotive Service Excellence (ASE) certification.

#### **Course Name: Building Trades I**

##### **Local Code: 85150G**

#### **Course Name: Building Trades II**

##### **Local Code: 85160G**

#### **Course Description:**

This two-year program will be divided into teaching the four basic trades of the construction industry: plumbing, electricity, masonry, and carpentry. Residential construction will be the major thrust with limited exposure to commercial and industrial construction. The first year will introduce the student to the fundamentals of the building trades, including job safety, measurement,

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practical math, materials, and basic training in electricity, plumbing, masonry, and carpentry. The second year will consist of real job experience as the students build exterior structures on site. Students will have an opportunity to gain hands-on experience in all four areas as they participate in the construction project.

**Course Name: Computer Systems Technology - (PC Technology)**

**Local Code: 86220G**

**Course Description:**

This is a one-year program designed to prepare students to take the A+ Certification examination sponsored by the Computing Technology Industry Association (Comp-TIA). Students will also complete components of the Microsoft IT Academy. Instruction includes configuration of PCs and peripherals, hardware and software installation, and upgrades. Students learn to diagnose problems, solve them, and repair under both DOS and WINDOWS environments. Preventive maintenance, customer service and safety are also included.

**Course Name: Cosmetology I**

**Local Code: 85270G**

**Course Name: Cosmetology II**

**Local Code: 85280G**

**Course Description:**

This is a two-year program that offers training and experience in basic cosmetology skills. Students study personal development, manicuring, sanitation and bacteriology, shampooing, hair and scalp treatments, facials, hair styling, hair cutting, and textbook theory. In addition, students learn how to thermally straighten and Marcel hair, and to perform chemical services such as permanent waving, chemical hair relaxing, hair coloring, frosting, foiling, and hair lightening. Students learn through practical demonstrations, videos, and supervised hands-on applications using mannequins and live models.

**Course Name: Culinary Arts I**

**Local Code: 82750G**

**Course Name: Culinary Arts II**

**Local Code: 82760G**

**Course Description:**

This is a two-year program. Students learn about commercial kitchens, including large and small kitchen equipment, sanitation, safety, food preparation, culinary math, nutrition, and baking. Students engage in planning, preparing and serving catered events at The Pruden Center, and may participate in food competition for awards and/or scholarships.

**Course Name: Utility/Heavy Construction Technology**

**Local Code: 86160G**

**Course Description:**

This is a one-year program that will provide both the knowledge and the hands-on skills needed to secure employment as a construction equipment operator. Students will learn about site grading and development, excavation, pipe laying, road building, surveying, reading blueprints, and construction safety. They will gain experience in operating fork-lifts, dump trucks, excavators, bulldozers, loaders, and backhoes. This program is certified by the National Center for Construction Education and Research (NCCER). Students must be sixteen years of age.

**Course Name: Welding I**

**Local Code: 86720DE or 86720G**

**Course Name: Welding II**

**Local Code: 86730G**

**Course Description:**

This two-year program teaches students about welding and metals. Students learn to read blueprints, set up equipment and weld using various techniques, including flat, vertical, horizontal, and overhead. Students have the opportunity to earn dual credit with Paul D. Camp Community College (Virginia Community College System). A partnership has been developed with Huntington Ingalls Newport News Shipbuilding to provide curriculum materials and support for this program.

### **BUSINESS AND INFORMATION TECHNOLOGY**

**Course Name: Advanced Design, Multimedia, and Web Technologies - (Certified Internet Webmaster)**

**Local Code: 66310DE or 66310G**

**Prerequisite: Keyboarding or documented touch keyboarding skills**

**Course Description:**

Multimedia Communications is a one-year program that teaches students to apply problem-solving skills to real-life situations through advanced integrated software applications, including multimedia presentations, printed and electronic publications, and web site development. Students work individually and in groups to explore advanced computer maintenance activities, telecommunications, programming and networking. The curriculum for this program is designed to prepare students for Certified Internet Webmaster – Associate certification. Students will also complete components of the Microsoft IT Academy. This course has a dual enrollment option.

**Course Name: Advanced Database Design and Management – (Oracle Internet Academy)**

**Local Code: 66610DE or 66610G**

**Course Description:**

The Oracle Internet Academy is a one-year program that provides students with strong interview presentation, collaboration, and problem-solving skills in addition to data base fundamentals and Java programming. It is

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designed to prepare students for the first level of the Oracle certification exam. Students will also complete components of the Microsoft IT Academy. Students interested in the Oracle Internet Academy need to have strong keyboarding skills and above average computer knowledge. Students have the opportunity to earn dual earn credit with Paul D. Camp Community College (Virginia Community College System).

### HEALTH AND MEDICAL SCIENCE

Each program constitutes a completer in Health Occupation Education. Participation in the student organization Health Occupations Students of America (HOSA) is an expectation.

#### **Course Name: Emergency Medical Technician**

**Local Code: 83330G**

#### **Course Description:**

This is a one-year program. Students become skilled in identifying and dealing with emergencies such as bleeding, fractures, airway obstruction, and cardiac arrest. Instruction emphasizes proper care and use of common emergency equipment and safe methods for lifting, moving, and transporting injured persons. Supervised on-the-job training and patient care experiences are part of the instructional program. Program completers may take the certification examination administered by the State Department of Health.

#### **Course Name: Nursing Aide**

**Local Code: 83600G**

#### **Course Description:**

This is a one-year program that emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development, simple body structure and function, and medical terminology. They are introduced to the study of microbes and disease. In addition, students receive elementary training in patient/nurse aide relationships, taking and recording vital signs, cardiopulmonary resuscitation, bathing, feeding, and dressing the patient, and transporting the patient in the hospital or nursing home. A forty hour clinical experience in a hospital and/or nursing home is part of the class. Program completers may take the certification examination administered by the State Board of Nursing.

#### **Course Name: Veterinary Assistant I**

**Local Code: 83100G**

#### **Course Name: Veterinary Assistant II**

**Local Code: 83110G**

#### **Course Description:**

Veterinary Assistant is a two-year program that teaches animal science and the care of animals, including animal structure and function, principles of health, and microbes and disease. The student will develop basic skills and techniques of assisting the veterinarian in the following areas: receptionist duties, animal examinations, the

handling and care of animals, first aid and surgery, and maintenance of equipment and facilities. On-the-job clinical instruction will be provided in veterinary clinics.

### FAMILY AND CONSUMER SCIENCE

#### **Course Name: Early Childhood, Education, and Services I**

**Local Code: 82850DE or 82850G**

#### **Course Name: Early Childhood, Education, and Services II**

**Local Code: 82860DE or 82860G**

#### **Course Description:**

This is a two-year program designed to help students develop the knowledge and skills needed for careers working with young children. Students learn about child development, nutrition, safety and dealing with emergencies, caring for children (infants, toddlers, preschoolers, and others with special needs), planning experiences for learning, and creating a good learning environment. Students are provided with hands-on experience working in preschool and elementary classrooms. Students have the opportunity to earn dual earn credit with Paul D. Camp Community College (Virginia Community College System).

### TECHNOLOGY EDUCATION

#### **Course Name: Modeling and Simulation – Support Specialist I**

**Local Code: 84980DE**

#### **Course Name: Modeling and Simulation – Support Specialist II**

**Local Code: 84982DE**

#### **Course Description:**

The curriculum outlines tasks and competencies over two instructional years: Modeling and Simulation Support Specialist I and II. Year one of the proposed Modeling and Simulation Support Specialist course will include the following competencies/tasks: Computer skills/EXCEL applications, digital visualization techniques and applications, data collection, presentation and analysis, career studies, communication skills, basic programming, problem-solving and design solutions. Competencies/tasks for the proposed year two curriculum will include: operating system instruction, networking and troubleshooting with hardware/software applications. In addition, a semester-long, project-based learning opportunity contextual to the student's career goals will be required. The contextual project will pair students with mentors in workplaces related to their respective career goals. Thus, this program will enable students to identify a concern and address a problem/issue related to their career goal. Students have the opportunity to earn dual earn credit with Paul D. Camp Community College (Virginia Community College System). Students will also complete components of the Microsoft IT Academy.

#### **Course Name: Geospatial Technology**

**Local Code: 84232DE**

**Course Description:**

The Geospatial Technology program provides experiences pertaining to the study of geographic information systems (GIS), global positioning systems (GPS), remote sensing (RS), digital image processing simulator (DIPS), Geodesy, automated cartography (Auto-Carto), land surveying (LS), and navigation. Fundamentally, these technologies allow students to explore and analyze the natural and human-made world, from local to global and beyond. Students will use various tools, processes, and techniques to create, store, access, manipulate, and revise data to solve human challenges. Students have the opportunity to earn dual credit with Paul D. Camp Community College (Virginia Community College System). Students will also complete components of the Microsoft IT Academy.

### The Governor’s School for the Arts

**Course Name: Dance**

**Local Code: 93150A**

**Course Description:**

The Dance Department offers professional training while encouraging the student’s personal development and artistic expression. The primary focus of the program is ballet and modern dance. This department offers comprehensive studies in ballet, modern dance and jazz techniques as well as dance composition, character, partnering, somatics & Pilates conditioning, pointe, with areas of focus in contemporary repertory and contemporary & classical ballet repertory. The program is designed to prepare students for auditions to prestigious colleges and dance repertory schools for the career-minded dancer.

**Course Name: Music**

**Local Code: 92890A**

**Course Description:**

The Instrumental Music Department offers professional training in a variety of individualized, jazz and orchestral instrumental music. Opportunities in the department include: private instruction, chamber music / jazz combos, orchestral performances, big band performances, concert and cultural tours throughout the United States and abroad, music in medicine study and collaboration, formal recitals for individuals and small ensembles, ear training, sight reading, yoga, eurhythmics, keyboard skills, literature, improvisation, theory and audio engineering. The program is designed to provide the greatest benefits of passionate, disciplined and individualized music education for students with a variety of career interests. The GSA Orchestra presents three major concerts each year, modeling its programming after the traditions of the world's finest orchestras while staying ahead of the ever-evolving ways that orchestras can serve their loyal community of listeners. The GSA Orchestra orchestra was founded by Raymond Pancarowicz and has performed concerts internationally in Scotland, Germany, Italy, Poland, the Czech Republic, Canada and England. The

Orchestra has also made debuts in some of the finest halls in the United States, including Carnegie Hall, Boston Symphony Hall and Davies Symphony Hall in San Francisco. The orchestra currently performs in the historic Roper Performing Arts Center in downtown Norfolk, the Sandler Center for the Arts in Virginia Beach and other venues throughout the seven cities. The Music Director, Jeff Phelps, a 1995 Governor’s School graduate, is honored to share the traditions that Raymond Pancarowicz set deeply into the soul and sound of the orchestra over his twenty years as director. The GSA Orchestra frequently features GSA student and guest soloists and has premiered works by GSA students. Recent repertoire has included: Prokofiev Symphony No. 5, Vaughan-Williams Symphony No. 2, Ives Three Places in New England, Shostakovich Symphony No. 12, Barber First Symphony, Marquez Danzon No. 2, Stravinsky Firebird and Dvorak Symphony No. 7. Jazz Studies is directed by Keith Philbrick and the Big Band is directed by Rob DeDominick. The Vocal Music Department is opera and classically based and is designed on pre-conservatory standards. The Vocal Music Department offers in-depth, comprehensive training in Voice, Theory, Sight Singing, and Diction. Classes include: Music History, Art Song Literature, Vocal Music Survey, Opera Workshop and Directing Opera Productions. The program is designed to prepare students for college and professional careers in singing opera and classical repertoire.

**Course Name: Theater Arts**

**Local Code: 93200A**

**Course Description:**

The goal for the Musical Theatre Department is to provide a challenging, intensive program of study designed to develop performance skills in voice, dance and acting to the advanced level necessary to compete in today's complex and ever-changing entertainment industry. The Department of Theatre and Film is designed to offer students a strong foundation in all aspects of the art of theatre and of film. Emphasis is placed on the rich cultural history of the art forms as well as practical applications in performance techniques for those on the Performance Track and design techniques for those on the Design/Tech Track. All students gain a strong background in theatre history and dramatic literature. Performance track students will study many performance techniques including classic acting styles as well as modern stage and film techniques. Design/Tech students will use state of the art equipment to explore stage lighting, scenic and sound design as well as costuming and stage projections. Students from both tracks are eligible to have a secondary focus on playwriting or filmmaking. Filmmaking students will learn all aspects of filmmaking including writing a screenplay, using cameras, light and sound equipment as well as editing. All filmmaking students will have several opportunities to create short films. Instructors include area professionals as well as visiting artists. Advanced students have the

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opportunity for internships with the Virginia Stage Company.

**Course Name: Visual Arts**

**Local Code: 91470A**

**Course Description:**

The goal of the Visual Arts Department is to provide a venue where students can explore their artistic interests and potential in various mediums of visual arts to ultimately find their own vision. The program provides intensive and challenging instruction and experiences designed to help students develop a strong conceptual basis as well as the technical skills necessary for creating and evaluating their own style and sophisticated works of art. The program is designed to prepare students for college and a career in their chosen visual art medium. The visual arts department encourages in-depth exploration and research in an array of studio courses in the field of printmaking, painting, photography, computer imaging, video imaging additive, subtractive, and constructed sculpture (as well as welding), design, and other areas such as medical illustration and fashion design. Additionally, students take continuing drawing and art history classes as well as classes which focus on conceptualization, analysis, and criticism. The schedule for Visual Arts students is based around two-hour elective studios which are taken daily, along with either art history, concepts and criticism. Each student chooses two elective studios from a variety offered each nine weeks. Portfolio development is an integral part of the visual arts program. With guidance from the department chair, students select two electives for each of the four nine week grading periods. In addition to the typical electives, advanced students may apply for independent study in a particular area.

### The Governor's School of Science and Technology

Students have the opportunity to earn dual earn credit with Thomas Nelson Community College (Virginia Community College System).

**Course Name: Advanced Chemical Analysis**

**Local Code: 44200DE**

**Course Description:**

This course focuses on the fundamental principles and laws of chemistry. Extensive laboratory work will serve as the basic tools for students to explore chemistry topics. The course will provide insights into inorganic and organic chemistry. The students will explore advanced concepts such as kinetics, acid/base chemistry, equilibrium, thermochemistry, and electrochemistry. The course will emphasize problem solving through chemical calculations. *Advanced Chemical Analysis is a college-level course with a strong focus on laboratory work. It examines topics*

*typically studied during the first year of college by science majors.*

**Course Name: Advanced Biological Analysis**

**Local Code: 43200DE**

**Prerequisite: Advanced Chemical Analysis**

**Course Description:**

In the fall semester, topics in the field of cell and molecular biology will be addressed, some of which include the roles of biological macromolecules, cellular organization and metabolism, and cellular processes such as communication, reproduction, respiration, and photosynthesis. In addition, mechanisms of inheritance and control of gene expression will be examined, followed by a study of developments in biotechnology. In the spring semester, evolution, phylogeny, and the diversity of living things will be discussed, with a special focus on the anatomy and physiology of animals. The laboratory experience is a major component of the course, allowing students the opportunity to use technologies applied in research, medical, and forensic laboratories while designing their own experiments and analyzing and interpreting their results. The anatomy and physiology of various vertebrate organ systems will be compared while dissecting animals in the laboratory. *Advanced Biological Analysis is a college-level course that examines the topics typically studied during the first year of college by biology majors.*

**Course Name: Calculus-based Engineering Physics I & II: Mechanics to Electromagnetism**

**Local Code: 45201DE**

**Co-requisite: College Calculus**

**Course Description:**

This is a mathematical rigorous course that investigates the principals of classical mechanics, gravitation, periodic motion, electric and magnetic field theory, AC and DC circuit theory, geometric optics through in-depth discussion, concept development, and inquiry-based experimental laboratory activities. The course also develops problem solving skills which emphasize the importance of inquiry in science and integrates the overarching themes of conservation and symmetry. Laboratory experiments use apparatuses such as dynamic tracks, ballistic pendulums, and different LabPro sensors to investigate fundamental physics theories and mathematical concepts. Computer data acquisition software is utilized to collect, analyze, and graph experimental data. The course encourages hands-on activities, class participation, and students taking responsibility for their own learning. Students will be provided many opportunities throughout the course to design and carry out investigations and to analyze and evaluate data. Learning fundamental principles, generalizations, model building and the ability to apply course material to improve thinking, problem solving, and decision making are essential general goals. Gaining factual knowledge and developing specific skills,

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competencies, and points of view needed by professionals are important general goals. *Co-requisite: Enrollment is GSST College Calculus Course.*

**Course Name: Calculus-based Engineering Physics III and IV: Modern Physics and Applied Physics: Engineering Design Principles**

**Local Code: 45202DE**

**Prerequisite: Calculus-based Engineering Physics I & II**

**Course Description:**

Learning fundamental knowledge of engineering and physics disciplines and the requisite skills to problem-solve, be innovative, and create opportunities in the real world are the overarching goals of this course. Extending the first year physics material, the course includes investigations in modern physics topics such as relativity, quantum mechanics, and nuclear physics, including, for example, conceptual understanding and practical applications of the wave function, Schrodinger's Equation, and radiation and radioactivity. The course includes also a series of project-based engineering learning experiences to help the student acquire and apply the skills, tools, and best practices of the engineering profession. Learning tools include, for example, standard commercial research modeling and simulation software such as MATLAB and COMSOL, hands-on design and troubleshooting of solid state electronics and digital systems, and industry standard computer-aided-design and 3-D printer coupled fabrication systems. In a challenging capstone project, students are tasked to identify a real-world engineering problem or opportunity, to propose and seek approval for their unique solution or innovation, then to design, model, and build their final product. The capstone experience includes continuous professional advice and technical review with community business and government partners such as NASA, SNAME, and the Jefferson Labs.

*Prerequisites: Engineering Physics I & II, College Calculus.*

**Course Name: Inquiry Physics & Scientific Programming I**

**Local Code: 45101DE and 31821DE**

**Prerequisite: Algebra II/Trigonometry**

**Course Description:**

This course will provide a thorough study of the key concepts in object-oriented programming (Java / Python) and design (data abstraction, data encapsulation, composition, inheritance and code re-use and implementation design techniques), programming constructs (primitives, references, classes, methods and interfaces), evaluating expressions (numeric, string and Boolean), program analysis (testing, debugging, run-time exceptions, pre and post conditions, assertions, analysis of algorithms and numerical representation of integers), data structures (strings, lists, one and two dimensional arrays and their accompanying operations – traversals, insertion and deletion), searching (sequential and binary), sorting (selection, insertion and merge sort) and develop an understanding of the ethical and social issues as it relates to the study of Computer Science. Topics in mechanics and

thermodynamics are covered in physics at non-calculus level. *Prerequisite: Algebra II /Trig, Biology.*

**Course Name: Inquiry Physics & Scientific Programming II**

**Local Code: 45102DE and 31822DE**

**Prerequisite: Algebra II /Trig and Inquiry Physics & Scientific Programming I**

**Course Description:**

This course will provide an exhaustive study of data structures (linked lists, stacks, queues, binary search trees and graphs) and algorithms (searching, sorting, shortest path, and spanning tree). Students will also gain an ability to design programming projects which implement concepts in the areas of graphical user interfaces, networking, cryptography, machine learning and modeling and simulation of discrete and continuous systems. Students will continue to explore the advanced topics of object oriented programming in the Java programming language. *Prerequisite: Algebra II /Trig and Scientific Programming I.*

**Course Name: College Modern Pre-calculus**

**Local Code: 31620DE**

**Course Description:**

This course is an intensive, rigorous approach to mathematics designed to prepare students for college calculus. First semester, students will focus on the algebraic and geometric properties of polynomial, rational, exponential, logarithmic, and trigonometric functions, and engage in discussions about how these models are represented in the real world. Second semester, students will learn the analytic properties of trigonometric functions and geometric conics, as well as learning the properties of polar coordinates, vectors, matrices, parametrics, and sequences and series. *The course concludes with an introduction to calculus.*

**Course Name: College Calculus**

**Local Code: 31990DE**

**Course Description:**

This course covers 2 semesters of university-level calculus for scientists and engineers, emphasizing understanding and application. The first semester covers limits and continuity of functions, techniques and applications of differentiation, and introduces integration. The second semester covers applications and advanced techniques of integration, differential equations, sequences and series, and analytical geometry. Upon completion of this course, student will understand both the geometric and rate of change analyses of differential and integral calculus. Students will apply their understanding of calculus to modeling real-world situations mathematically and be able to solve those mathematical models. *Successful completion of this course will prepare students to enroll in multivariable calculus / linear algebra.*

**Course Name: Statistical Research Methods**

**Local Code: 31902DE**

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### **Course Description:**

This course is a comprehensive conceptual and practical presentation of probability, descriptive/inferential statistics, and the key ideas underlying statistical and quantitative reasoning. Statistical methods of organizing, summarizing, and displaying data combined with statistical testing are used to solve problems from a myriad of areas such as business, engineering, biology, and medicine. Advantages and limitations of statistical methods are developed. Graphing calculators and Minitab statistical software are extensively utilized. The emphasis is on the interpretation of the statistical results rather than the mere computation. Topics include random variables, sampling, distribution families, binomial and Poisson probabilities, conditional probability, estimations, data analysis, contingency tables, frequentist and Bayesian perspectives, simple and multiple regression analysis including linear, power, and exponential fit, confidence intervals, hypothesis testing for means and proportions, Chi-square, ANOVA, and several non-parametric testing, and design of experiments.

### **Course Name: Multivariable Calculus/Linear Algebra**

**Local Code: 31780DE**

**Prerequisite: College Calculus**

### **Course Description:**

In multivariable calculus, students extend their study of calculus from the plane into 3-dimensional space and beyond. After an initial examination of geometry and algebra of 3-space, students will use differential and integral calculus to study the nature of curves and surfaces in 3-space. Topics include linear approximations of curves and surfaces in 3-space, optimization of functions in several variables, and use of integral calculus to study area, volume, and other applications. The semester concludes with an examination of the calculus of vector fields. In linear algebra, students use matrix theory to solve systems of linear equations and apply knowledge of the determinant to describe the nature of those solutions. The algebra and applications of linear transformations will be studied in both real and general vector spaces. Students will calculate eigenvalues and eigenvectors of linear transformations and use these to diagonalize linear systems. Applications include best fit functions and solutions of systems of 1st order, linear differential equations. *Prerequisite GSST College Calculus or completion of AP Calculus BC with a score of 5 on the exam, or a score of 4 and permission of the instructor.*

### **Course Name: Differential Equations and Math Methods in Physics**

**Local Code: 32123DE**

### **Course Description:**

The first semester the emphasis will be on Ordinary Differential Equations (ODE). Partial Differential Equations (PDE) at the end of the first semester and conclude the second semester by looking at modeling the four fundamental forces and other applied topics. The

construction of mathematical models to address real-world problems has been one of the most important aspects of each of the branches of science. It is often the case that these mathematical models are formulated in terms of equations involving functions as well as their derivatives. Such equations are called differential equations. These differential equations are the language in which the laws of nature can be expressed. Understanding the properties of solutions of differential equations is fundamental to much of contemporary science and engineering. If only one independent variable is involved, often time, the equations are called ordinary differential equations. The course will demonstrate the usefulness of ordinary differential equations for modeling physical and other phenomena. Complementary mathematical approaches for their solution will be presented, including analytical methods, graphical analysis and numerical techniques. This course also covers the classical partial differential equations of applied mathematics, physics, and engineering: diffusion, Laplace/Poisson, and wave equations. It also includes methods and tools for solving these PDEs, such as separation of variables, Fourier, Laplace, Legendre, Bessel series and transforms, eigenvalue problems, and Green's functions. Emphasis during the second semester will be placed on building and modeling the fundamental forces of nature. *Prerequisite for Differential Equations is successful completion of Multivariable Calculus/Linear Algebra and permission of the instructor.*

### **Course Name: Research Methodology & Ethics**

**Local Code: 46100DE**

### **Course Description:**

Students will study contemporary issues in scientific research while conducting independent research projects outside of class. Students are encouraged to select projects consistent with their strand or career goals. Course topics include research design strategies, data analysis and representation (with and without computer-assistance), norms of conduct for ethical research behavior, and the historical basis for current research regulations, among others. All students must conduct a review of the primary literature to support their research design assumptions, prepare and present a plan of their proposed research for institutional review and approval, conduct their studies and report their findings via formal technical paper as well as oral presentation. All students present posters in our junior science symposium, judged by professionals in various fields. All students complete application materials for the Tidewater Science and Engineering Fair, and participation in this, and other fairs, is highly encouraged. This course will serve as a preparatory course for the Honor Research and Mentorship Program.

### **Course Name: Environmental Science: Research Applications / Mentorship**

**Local Code: 46110DE**

## HIGH SCHOOL COURSES

### **Course Description:**

In the fall semester, students integrate aspects of biology, chemistry, earth science, and physics in the study of the environment. Exploration of relationships between organisms and their biotic and abiotic environment at multiple levels of biological system hierarchy serves as the foundation for this course. Laboratory and fieldwork are integral components of the course. Students undertake repeated sampling of a nearby pond ecosystem for water quality and biotic components. While analyzing their own data, students will become familiar with concepts such as spatial and temporal variation in natural systems, species diversity, and community similarity indices. Critical thinking, risk analysis, and cost-benefit analysis will be emphasized as students identify and analyze alternative solutions to complex environmental problems. Current or on-going environmental issues and/or case histories will be emphasized. Spring semester will emphasize ecological principals from physiological ecology to ecosystem ecology. Mentorship involves students in concentrated research or project development in firms and laboratories throughout the Tidewater area. Students are supervised by mentors who are scientists, engineers, physicians and other professionals. Students will plan, implement, document and present research or projects chosen in consultation with their mentors. Students refine their research and presentation techniques, problem-solving, critical thinking and leadership skills. Students gain proficiency with Minitab statistical software for presentation and analysis of data. This course provides students with an opportunity to integrate theory, knowledge and application through a research experience.

## Appendix A

### SOL Substitute Tests for Verified Credit



# VIRGINIA DEPARTMENT OF EDUCATION

## Substitute Tests Approved for Awarding Verified Credit

**Revised September 09, 2016**

A change log is at the end of the document.

As permitted by the Standards for Accrediting Public Schools ([8VAC20-131-110](#)), the Virginia Board of Education has approved various “substitute” tests and set the minimum score that must be achieved for the purpose of awarding verified credit to students. The tests listed in this document are approved by the Virginia Board of Education as substitute tests, and verified credit can be awarded when the student achieves at least the minimum score required for a Pass/Proficient rating as shown for each test.

### English Substitute Tests

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
End-of-Course Writing	AP English Language and Composition +	2	3
End-of-Course Writing	International Baccalaureate® (IB) English Language A: Literature and Language (Standard Level) +	2	3
End-of-Course Writing	IB English Language A: Literature and Language (Higher Level) +	2	3
End-of-Course Writing	IB English Language A: Literature (Standard Level) +	2	3
End-of-Course Writing	IB English Language A: Literature (Higher Level) +	2	3
End-of-Course Writing	Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) Writing Subscore +	17	24
End-of-Course Writing	Cambridge International Examination: Cambridge International General Certificate of Secondary Education (IGCSE) First Language English	D	C
End-of-Course Writing	Cambridge International Examinations: English Language General Certificate of Education (GCE) Advanced Subsidiary-(AS) Level	E	D

+ Students may use this test to earn two verified credits in English.

**English Substitute Tests (continued)**

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
End-of-Course Writing	ACT: English/Writing Combined Score	16	22
End-of-Course Writing	ACT WorkKeys <i>Writing</i> ++	3	4
End-of-Course Writing	ACT WorkKeys <i>Business Writing</i> (ACT will discontinue this test on June 1, 2017. See Superintendent's Memo No. 222-16, dated September 9, 2016 for specific details.)	3	4
End-of-Course Writing	AP English Literature and Composition +	2	3
End-of-Course Writing	SAT I Writing (Must have been administered prior to March 2016.)	400	500
End-of-Course Reading	AP English Literature and Composition +	2	3
End-of-Course Reading	IB English Language A: Literature and Language (Standard Level) +	2	3
End-of-Course Reading	IB English Language A: Literature and Language (Higher Level) +	2	3
End-of-Course Reading	IB English Language A: Literature (Standard Level) +	2	3
End-of-Course Reading	IB English Language A: Literature (Higher Level) +	2	3
End-of-Course Reading	Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) Reading Subtest +	16	21
End-of-Course Reading	Cambridge International Examinations: Literature in English (IGCSE)	E	C
End-of-Course Reading	Cambridge International Examination: English Language GCE-Advanced Subsidiary (AS) Level	E	D
End-of-Course Reading	Cambridge International Examination: Literature in English GCE Advanced (A) Level	E	D
End-of-Course Reading	ACT: Reading Subtest	17	22
End-of-Course Reading	AP English Language and Composition +	2	3
End-of-Course Reading	ACT WorkKeys <i>Reading for Information</i> +++	4	6

+ Students may use this test to earn two verified credits in English.

++ Available as a substitute test for the End-of-Course Writing test based on the 2002 SOL only.

+++ Effective beginning with the 2015-2016 school year.

**Mathematics Substitute Tests**

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
Algebra I	CLEP College Algebra	30	40
Algebra I	IB Math Studies (Standard Level)++++	3	4
Algebra I	IB Mathematics (Standard Level)++++	3	4
Algebra I	IB Mathematics (Higher Level)++++	3	4
Algebra I	SAT I Mathematics Subtest (Must have been administered prior to March 2016.)	440	520
Algebra I	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570
Algebra I	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
Algebra I	AP Calculus +++++	2	3
Algebra I	Cambridge International Examinations: IGCSE Mathematics	E	D
Algebra I	Cambridge International Examinations: IGCSE Additional Mathematics	E	D
Algebra I	Cambridge International Examinations: IGCSE Extended Mathematics	D	C
Algebra I	Cambridge International Examinations: Mathematics (A Level)	E	D
Algebra I	Cambridge International Examinations: Further Mathematics (A Level)	E	D
Algebra I	ACT: Mathematics Subtest	18	26
Algebra II	IB Math Studies (Standard Level)++++	3	4
Algebra II	IB Mathematics (Standard Level)++++	3	4

++++ Students may use this test to earn two verified credits in mathematics.

**Mathematics Substitute Tests (continued)**

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
Algebra II	IB Mathematics (Higher Level)+++++	3	4
Algebra II	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570
Algebra II	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
Algebra II	AP Calculus+++++	2	3
Algebra II	Cambridge International Examinations: IGCSE Additional Mathematics	E	D
Algebra II	Cambridge International Examinations: Mathematics (A Level)	E	D
Algebra II	Cambridge International Examinations: Further Mathematics (A Level)	E	D
Algebra II	CLEP College Algebra	50	63
Geometry	Cambridge International Examinations: IGSCE Mathematics	E	C
Geometry	Cambridge International Examinations: IGCSE Extended Mathematics	D	C
Geometry	ACT: Mathematics Subtest	20	27
Geometry	IB Math Studies (Standard Level)+++++	3	4
Geometry	IB Mathematics (Standard Level)+++++	3	4
Geometry	IB Mathematics (Higher Level)+++++	3	4

++++ Students may use this test to earn two verified credits in mathematics.

**Mathematics Substitute Tests (continued)**

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
Geometry	SAT II Math IC or SAT Subject Test in Mathematics Level 1	500	570
Geometry	SAT II Math IIC or SAT Subject Test in Mathematics Level 2	590	660
Geometry	AP Calculus++++	2	3

++++ Students may use this test to earn two verified credits in mathematics.

**Science Substitute Tests**

SOL Test	Substitute Test	Pass/Proficient	Pass/Advanced
Earth Science	Cambridge International Examinations: Environmental Science, GCE - AS Level	E	D
Earth Science	IB Environmental Systems and Society (Standard Level)	2	3
Earth Science	AP Environmental Science	2	3
Biology	AP Biology	2	3
Biology	SAT II Biology Ecological OR Molecular	350	450
Biology	CLEP General Biology	30	40
Biology	IB Biology (Higher Level)	2	3
Biology	IB Biology (Standard Level)	2	3
Biology	Cambridge International Examinations: Biology, GCE -A Level	E	D
Biology	Cambridge International Examinations: Biology, GCE- AS Level	E	D

**Science Substitute Tests (continued)**

<b>SOL Test</b>	<b>Substitute Test</b>	<b>Pass/Proficient</b>	<b>Pass/Advanced</b>
Chemistry	AP Chemistry	2	3
Chemistry	SAT II Chemistry	400	500
Chemistry	CLEP General Chemistry	33	43
Chemistry	IB Chemistry (Higher Level)	2	3
Chemistry	IB Chemistry (Standard Level)	2	3
Chemistry	Cambridge International Examinations: Chemistry, GCE- A Level	E	D
Chemistry	Cambridge International Examinations: Chemistry, GCE - AS Level	E	D

**History and Social Science Substitute Tests**

<b>SOL Test</b>	<b>Substitute Test</b>	<b>Pass/Proficient</b>	<b>Pass/Advanced</b>
VA & US History	AP US History	2	3
VA & US History	CLEP History of US I and II (total score for both tests)	60	80
VA & US History	SAT II American History	400	500
VA & US History	IB US History (Higher Level)	2	3
World History and Geography to 1500	SAT II World History	450	530
World History and Geography to 1500	AP World History	2	3
World History and Geography 1500-Present	SAT II World History	450	530
World History and Geography 1500-Present	AP World History	2	3
World History and Geography 1500-Present	AP European History	2	3
World History and Geography 1500-Present	IB History of Europe	2	3

**History and Social Science Substitute Tests (continued)**

<b>SOL Test</b>	<b>Substitute Test</b>	<b>Pass/Proficient</b>	<b>Pass/Advanced</b>
World Geography	AP Human Geography	2	3
World Geography	Cambridge International Examinations: IGCSE Geography	F	D
World Geography	Cambridge International Examinations: GCE -AS Level	E	C
World Geography	Cambridge International Examinations: GCE -A Level	E	D
World Geography	IB Geography Test	2	3

**Document Change Log:**

<b>Date</b>	<b>Description of Change</b>
02/25/2016	ACT WorkKeys <i>Reading for Information</i> test added as a substitute test.
08/19/2016	Updated <i>SAT I Writing</i> assessment and <i>SAT I Mathematics Subtest</i> . Due to changes in these assessments by the College Board, the tests must have been administered prior to March, 2016 to be valid for awarding verified credit.
08/19/2016	Updated <i>SAT II Math IC</i> assessment to reflect name change by the College Board to <i>SAT Subject Test in Mathematics Level 1</i> .
08/19/2016	Updated <i>SAT II Math IIC</i> assessment to reflect name change by the College Board to <i>SAT Subject Test in Mathematics Level 2</i> .
09/09/2016	Updated ACT WorkKeys <i>Business Writing</i> indicating that ACT will discontinue this test on June 1, 2017. See Superintendent's Memo No. 222-16, dated September 9, 2016 for specific details.

## Appendix B

Board of Education Approved Industry Certifications, Occupational Competency Assessments,  
and Licensure

**2015-2016 BOARD OF EDUCATION APPROVED INDUSTRY CERTIFICATIONS, OCCUPATIONAL COMPETENCY ASSESSMENTS,  
AND PROFESSIONAL LICENSES**

**BOARD APPROVED April 23, 2015**

One student-selected verified credit may be awarded for passing one certification or licensure examination when the student earns one standard unit of credit in a career and technical education concentration.

Two student-selected verified credits may be awarded for students who complete a career and technical education concentration and pass two certifications or licensure examinations. The first must be substituted for the student-selected verified credit and the second may be substituted for either a science or history and social science verified credit.

Any one certification or licensure examination identified in this document will satisfy the Standard Diploma requirement for graduation.

Students are eligible to earn diploma seals by passing one of the credentials or licensure examinations in this document as well as completing the requirements set forth in 8 VAC 20-131-50.H.3, 4.

NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>AGRICULTURAL EDUCATION</b>	
Agribusiness Examination	New York State Department of Education (Cornell University)
Agricultural Biotechnology Assessment	National Occupational Competency Testing Institute (NOCTI)
Agricultural Mechanics and Technology Examination	New York State Department of Education (Cornell University)
Agriculture Mechanics Assessment	National Occupational Competency Testing Institute (NOCTI)
Animal Systems Assessment	National Occupational Competency Testing Institute (NOCTI)
Beef Quality Assurance Certification Assessment	National Beef Quality Assurance/ Virginia Cooperative Extension
Briggs & Stratton Master Service Technician Program Examinations (Pass any one exam)	Briggs & Stratton Corporation
Commercial Pesticide Applicator Certification Examination	Virginia Department of Agriculture and Consumer Services
<b>Conservation Assessment</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
Equine Science Examination	New York State Department of Education (Cornell University)
Floriculture Assessment	National Occupational Competency Testing Institute (NOCTI)
Floriculture-Greenhouse Assessment	National Occupational Competency Testing Institute (NOCTI)
Forestry Products & Processing Assessment	National Occupational Competency Testing Institute (NOCTI)
Greenhouse Operators Certification Examination	Southeast Greenhouse Growers Association
Horticulture-Landscaping Assessment	National Occupational Competency Testing Institute (NOCTI)
Natural Resource Systems Assessment	National Occupational Competency Testing Institute (NOCTI)
Outdoor Power Equipment Certification Examinations (Pass any one exam)	Equipment and Engine Training Council
Pet Sitters Certification Examination	National Association Professional Pet Sitters

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Pork Quality Assurance Certification Assessment	National Pork Board/Virginia Cooperative Extension
Power Equipment Technology Examination	SkillsUSA
Private Applicator Certification Examination	Virginia Department of Agriculture and Consumer Services
Production Agriculture Assessment	National Occupational Competency Testing Institute (NOCTI)
Registered Technician Certification Examination	Virginia Department of Agriculture and Consumer Services
Small Animal Care Examination	New York State Department of Education (Cornell University)
Small Animal Science and Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Small Engine Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
<b>Certified Veterinary Assistant Examination</b>	<b>American Allied Health</b>

**BUSINESS AND INFORMATION TECHNOLOGY**

Accounting—Basic Assessment	National Occupational Competency Testing Institute (NOCTI)
Accounting—Complete Assessment Accounting - Advanced Assessment	National Occupational Competency Testing Institute (NOCTI)
Administrative Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)
Administrative Services Assessment	National Occupational Competency Testing Institute (NOCTI)
Adobe Certified Associate Examinations (Pass any one exam)	Adobe Systems Incorporated
Apple Pro Certification Program Examinations (Pass any one exam)	Apple, Inc.
Banking and Related Services Assessment	National Occupational Competency Testing Institute (NOCTI)
Brainbench Desktop Publishing Certification Tests (Pass any one test)	Brainbench

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Brainbench Network Administration Certification Tests (Pass any one test)	Brainbench
Brainbench Software Development Certification Tests (Pass any one test)	Brainbench
Brainbench Systems Administration Certification Tests (Pass any one test)	Brainbench
Brainbench Technical Support Certification Tests (Pass any one test)	Brainbench
Brainbench Web Administration Certification Tests (Pass any one test)	Brainbench
Brainbench Web Design and Development Certification Tests (Pass any one test)	Brainbench
Business Financial Management Assessment	National Occupational Competency Testing Institute (NOCTI)
Business Information Processing Assessment	National Occupational Competency Testing Institute (NOCTI)
Certified Electronic Health Record Specialist (CEHRS) Examination	National Healthcareer Association
Certified Internet Web (CIW) Professional Examinations (Pass any one exam)	ProsoftTraining
Certified Medical Administrative Assistant (CMAA) Examination	National Healthcareer Association
Certified Novell Administrator (CNA) Examination	Novell
Computer Programming Assessment	National Occupational Competency Testing Institute (NOCTI)
Financial and Investment Planning Assessment	National Occupational Competency Testing Institute (NOCTI)
<b>Financial and Managerial Accounting Assessment</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
Fundamental Business Concepts Assessment	ASK Business Institute

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
General Management Assessment	National Occupational Competency Testing Institute (NOCTI)
Global Standard (GS4) Certification Examination	Certiport
Human Resources Management Assessment	National Occupational Competency Testing Institute (NOCTI)
Interactive Media Assessment	National Occupational Competency Testing Institute (NOCTI)
Intuit QuickBooks Certification Examination	Certiport
<del>Linux+ Certification Examinations</del> <b>Linux+ Powered by Linux Professional Institute (LPI) Program Examinations (Pass any one exam)</b>	CompTIA
Microsoft Certified Professional Examinations (Pass any one exam)	Microsoft
Microsoft Office Specialist (MOS) Examinations (Pass any one exam)	Microsoft
Microsoft Technology Associate (MTA) Program Examinations (Pass any one exam)	Microsoft
Network+ Certification Examination	CompTIA
<b>Network Pro Certification Assessment</b>	<b>Test Out Corporation</b>
Oracle Certification Program Examinations (Pass any one exam)	Oracle Corporation
<b>PC Pro Certification Assessment</b>	<b>Test Out Corporation</b>
Security+ Certification Examination	CompTIA
<b>Security Pro Certification Assessment</b>	<b>Test Out Corporation</b>
Virtual Enterprise Assessment	National Occupational Competency Testing Institute (NOCTI) and Certiport
WISE Financial Literacy Certification Test	Working in Support of Education (WISE)
Web Design Assessment	National Occupational Competency Testing Institute (NOCTI)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>CAREER READINESS CREDENTIALS</b>	
College and Work Readiness Assessment (CWRA+)	Council for Aid to Education
National Career Readiness Certificate Assessment	ACT, WorkKeys®
Workplace Readiness Skills for the Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)
<b>FAMILY AND CONSUMER SCIENCES EDUCATION</b>	
ACF Culinary Arts Certification Examination	American Culinary Federation, Inc. (Exam is administered by NOCTI)
ACF Retail Commercial Baking Assessment	American Culinary Federation, Inc. (Exam is administered by NOCTI)
Broad Field Family and Consumer Sciences Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
Child Development Associate (CDA) Certification Assessment	Child Development Associates (CDA) Council
Commercial Baking Examination	SkillsUSA
Commercial Foods Assessment	National Occupational Competency Testing Institute (NOCTI) and Certiport
Culinary Arts Cook-Level 2 Assessment	National Occupational Competency Testing Institute (NOCTI)
Culinary Arts Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
Culinary Arts Examination	SkillsUSA
Culinary Arts Prep Cook-Level 1 Assessment	National Occupational Competency Testing Institute (NOCTI)
Early Childhood Education and Care Assessment--Advanced	National Occupational Competency Testing Institute (NOCTI)
Early Childhood Education and Care Assessment--Basic	National Occupational Competency Testing Institute (NOCTI)
Early Childhood Education Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
Education and Training Assessment	National Occupational Competency Testing Institute (NOCTI)

**2015-2016 BOARD OF EDUCATION APPROVED INDUSTRY CERTIFICATIONS, OCCUPATIONAL COMPETENCY ASSESSMENTS,  
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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Education Fundamentals Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
<del>Family Services Examination</del> Family and Community Services Assessment	American Association of Family and Consumer Sciences (AAFCS)
Fashion, Textiles, and Apparel Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
Food Science Fundamentals Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
Hospitality Management—Food and Beverage Option Assessment	National Occupational Competency Testing Institute (NOCTI)
Hospitality Management—Lodging Option Assessment	National Occupational Competency Testing Institute (NOCTI)
Housing and Furnishings Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
<del>Interior Design Examination</del> Interior Design Fundamentals Assessment	American Association of Family and Consumer Sciences (AAFCS)
ManageFirst Credentialing Program Examinations (Pass any one exam)	Educational Foundation of the National Restaurant Association
Nutrition, Food, and Wellness Examination Assessment	American Association of Family and Consumer Sciences (AAFCS)
ParaPro Assessment	Educational Testing Service
Personal and Family Finance Certification Examination	American Association of Family & Consumer Sciences (AAFCS)
Praxis, Part 1 Examination	Educational Testing Service
ProStart Program Certification Examinations (Pass Level I and/or Level 2)	Education Foundation of the National Restaurant Association
Restaurant, Food and Beverage Services Assessment	National Occupational Competency Testing Institute (NOCTI)
Retail Commercial Baking Assessment	National Occupational Competency Testing Institute (NOCTI)
ServSafe Manager Certification Examination	Educational Foundation of the National Restaurant Association
START Certification Examination (Hospitality Skills)	American Hotel and Lodging Association (AH&LA)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>HEALTH AND MEDICAL SCIENCES EDUCATION</b>	
<b>AAPC Medical Coding Program Examinations (Pass any one exam)</b>	<b>AAPC</b>
<b>American Medical Certification Association (AMCA) Program Examinations (Pass any one exam)</b>	<b>American Medical Certification Association (AMCA)</b>
Certified Clinical Medical Assistant Examination	National Healthcareer Association
Certified Dental Assistant: Infection Control Examination (ICE)	Dental Assisting National Board, Inc.
Certified Dental Assistant: Radiation Health & Safety (RHS) Examination	Dental Assisting National Board, Inc.
Certified EKG Technician (CET) Examination	National Healthcareer Association
<b>Certified Patient Care Technician (CPCT) Examination</b>	<b>American Allied Health</b>
<b>Certified Personal Trainer Examination</b>	<b>National Academy of Sports Medicine (NASM)</b>
Certified Phlebotomy Technician (CPT) Examination	National Healthcareer Association
<b>Certified Physical Therapy Aide (CPTA) Examination</b>	<b>American Allied Health</b>
Certified Surgical Technologist (CST) Examination	National Board of Surgical Technology and Surgical Assisting (NBSTSA)
Certified Veterinary Assistant Examination	Animal Care Technologies
Dental Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)
Diagnostic Services Assessment	National Occupational Competency Testing Institute (NOCTI)
Emergency Medical Responder Examination	Department of Health, Office of Emergency Medical Services
Emergency Medical Technician Examination	Department of Health, Office of Emergency Medical Services
Health Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)
Health Informatics Assessment	National Occupational Competency Testing Institute (NOCTI)

**2015-2016 BOARD OF EDUCATION APPROVED INDUSTRY CERTIFICATIONS, OCCUPATIONAL COMPETENCY ASSESSMENTS,  
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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Home Health Aide Assessment	National Occupational Competency Testing Institute (NOCTI)
Medical Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)
Medical Assisting Examination	SkillsUSA
<b>Medical Coding and Billing Specialist (MCBS) Examination</b>	<b>American Allied Health</b>
<b>National Certified Insurance and Coding Specialist (NCICS) Examination</b>	<b>National Center for Competency Testing (NCCT)</b>
<b>National Certified Medical Assistant (NCMA) Examination</b>	<b>National Center for Competency Testing (NCCT)</b>
<b>National Certified Patient Care Technician (NCPCT) Examination</b>	<b>National Center for Competency Testing (NCCT)</b>
<b>National Certified Phlebotomy Technician (NCPT) Examination</b>	<b>National Center for Competency Testing (NCCT)</b>
<b>Tech in Surgery-Certified (TS-C) Examination</b>	<b>National Center for Competency Testing (NCCT)</b>
<del>National Health Care Foundation Skills Standards Assessment</del> <b>National Health Science Assessment</b>	<del>National Consortium on Health Science &amp; Technical Education</del> <b><u>National Consortium for Health Science Education</u></b>
NRDA Certification Examination (Dental Assisting)	National Allied Health Registry/National Association for Health Professionals
NRDA Certification Examination (Medical Assisting)	National Allied Health Registry/National Association for Health Professionals
Nurse Aide Examination	Virginia Board of Nursing
Nurse Assisting Examination	SkillsUSA
Nursing Assisting Assessment	National Occupational Competency Testing Institute (NOCTI)
Practical Nursing Assessment	National Occupational Competency Testing Institute (NOCTI)
Therapeutic Services Assessment	National Occupational Competency Testing Institute (NOCTI)
Virginia Pharmacy Technician Examination	Virginia Board of Pharmacy

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>MARKETING</b>	
Concepts of Finance Examination	ASK Business Institute
Concepts of Entrepreneurship and Management Assessment	ASK Business Institute
Fundamental Marketing Concepts Assessment	ASK Business Institute
Hospitality and Tourism Management Program Examinations, (Pass Level 1 and/or Level 2)	American Hotel and Lodging Association (AH&LA)
Lodging Assessment	National Occupational Competency Testing Institute (NOCTI)
Lodging Management Program Certification Examinations, (Pass Level 1 and/or Level 2)	American Hotel and Lodging Association (AH&LA)
<del>National Professional Certification in Customer Service Assessment</del> Customer Service and Sales Certification Assessment	National Retail Federation Foundation
Retail Merchandising Assessment	National Occupational Competency Testing Institute (NOCTI)
<del>National Professional Certification in Retail Management Examination</del> Retail Management Certification Assessment	National Retail Federation Foundation
Recreation, Amusements, and Attractions Assessment	National Occupational Competency Testing Institute (NOCTI)
<del>National Professional Certification in Sales Assessment</del> Advanced Customer Service and Sales Certification Assessment	National Retail Federation Foundation
Travel and Tourism Assessment	National Occupational Competency Testing Institute (NOCTI)
<b>MILITARY SCIENCE</b>	
Armed Services Vocational Aptitude Battery Examination	United States Military Entrance Processing Command

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>TECHNOLOGY EDUCATION</b>	
3D Visualization & Animation Examination	SkillsUSA
ADDA Architectural Drafting Apprentice Examination	American Design Drafting Association (ADDA)
ADDA Architectural Drafting Examination	American Design Drafting Association (ADDA)
ADDA Mechanical Drafting Apprentice Examination	American Design Drafting Association (ADDA)
ADDA Mechanical Drafting Examination	American Design Drafting Association (ADDA)
Architectural Drafting Assessment	National Occupational Competency Testing Institute (NOCTI)
Architectural Drafting Examination	SkillsUSA
AutoCAD Certification Examinations (Pass any one exam)	Brainbench
Autodesk Application Certification Program Examinations (Pass any one exam)	Autodesk
Autodesk Certification Program Examinations (Pass any one exam)	Autodesk
Automated Manufacturing Technology Examination	SkillsUSA
<b>Biotechnology Assessment</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
<b>Certified Logistics Associate (CLA) Examination</b>	<b>Manufacturing Skills Standards Council (MSSC)</b>
<b>Certified Logistics Technician (CLT) Associate Examination</b>	<b>Manufacturing Skills Standards Council (MSSC)</b>
Certified SolidWorks Associate Examination	SolidWorks Corporation
Electronics Application & Technology Examination	SkillsUSA
Electronics Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Energy Industry Fundamentals Certificate Assessment	Center for Energy Workforce Development

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Engineering Technology Examination	SkillsUSA
<b>Logistics Technology/Distribution Center Services Assessment</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
Manufacturing Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Manufacturing Technology Certification Examinations (Pass any one exam)	Manufacturing Skills Institute
Mechanical Drafting and Design Assessment	National Occupational Competency Testing Institute (NOCTI)
<del>Pre-Engineering Assessment</del> <b>Pre-Engineering/Engineering Technology Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
Project Lead the Way End-of-Course Tests (Pass any one end-of-course test)	Project Lead The Way
<b>Pre-Engineering Industry Certification Examination</b>	<b>Robotics Education Competition (REC) Foundation- Hostedware Corporation</b>
<b>Robotics Industry Certification Examination</b>	<b>Robotics Education Competition (REC) Foundation- Hostedware Corporation</b>
<del>Robotics Examination</del> <b>Robotics and Automation Technology Examination</b>	SkillsUSA
<b>Spatial Projects And Community Exchange (SPACE) Examination</b>	<b>Digital Quest, Inc.</b>
STARS Certification Examination	Digital Quest, Inc.
Technical Drafting Examination	SkillsUSA
<b>TRADE AND INDUSTRIAL EDUCATION</b>	
A+ Certification Examinations (Pass any one exam from 2009 certification program)	CompTIA
Advertising and Design Assessment	National Occupational Competency Testing Institute (NOCTI)
Audio-Radio Production Examination	SkillsUSA
Audio-Visual Communications Assessment	National Occupational Competency Testing Institute (NOCTI)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Automotive Technician Core Assessment	National Occupational Competency Testing Institute (NOCTI)
Automotive Technician Advanced Assessment	National Occupational Competency Testing Institute (NOCTI)
Automotive Technician Examinations (ASE)—(Pass any one exam from Automobile Technician Test Series)	National Institute for Automotive Service Excellence
Avid Media Composer Certification Program Examinations (Pass any one exam)	Avid
<del>Basic Installer Examination, Mobile Electronics Certified Professional Mobile Electronics Certified Professional (MECP) Basic Installation Technician Examination</del>	Consumer Electronics Association
BICSI Registered Installer Certification Examination, Level 1	BICSI (International Telecommunications Association)
Broadcasting and Journalism Assessment	National Occupational Competency Testing Institute (NOCTI)
Building Construction Occupations Assessment	National Occupational Competency Testing Institute (NOCTI)
Building Trades Maintenance Assessment	National Occupational Competency Testing Institute (NOCTI)
CAD Assessment	National Occupational Competency Testing Institute (NOCTI)
CAD/CAM Assessment	National Occupational Competency Testing Institute (NOCTI)
Cabinetmaking Assessment	National Occupational Competency Testing Institute (NOCTI)
Cabinetmaking Examination	SkillsUSA
Carpentry Assessment	National Occupational Competency Testing Institute (NOCTI)
Carpentry Examination	SkillsUSA
Carpentry Level One, National Construction Career Test	National Center for Construction Education & Research (NCCER)
Certified Computer Service Technician Examination	Electronics Technicians Association, International (ETA)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Certified Electronics Technician Associate (CETa) Examination	Electronics Technicians Association, International (ETA)
Certified Satellite Dish Installer Examination	Electronics Technicians Association, International (ETA)
CISCO CCNA Academy End-of-Course Examinations (Pass any two end-of-course exams, Levels 1-4)	CISCO Systems
CISCO Certified Networking Associate Examinations (Pass any one exam)	CISCO Systems
<del>Collision Repair Assessment</del> <b>Collision Repair Technology Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
Collision Repair and Refinishing Technician Examinations (ASE)-(Pass any one exam)	National Institute for Automotive Service Excellence
Collision Repair/Refinishing Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Computer Maintenance Technology Examination	SkillsUSA
Computer Networking Fundamentals Assessment	National Occupational Competency Testing Institute (NOCTI)
Computer Repair Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
CNC Milling and Turning Technology Examination	SkillsUSA
Construction Assessment	National Occupational Competency Testing Institute (NOCTI)
<del>Construction Masonry-Blocklaying Assessment</del> <b>Construction Masonry-Block Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
<del>Construction Masonry-Bricklaying Assessment</del> <b>Construction Masonry-Brick Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
Construction Technology: National Construction Career Test	National Center for Constructional Education & Research (NCCER)
Computer Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
CompTIA Strata Fundamentals of IT Technology Certification Examination	Certiport
Copper Based Cabling Certification Examination	RBT Systems, Inc.

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Core: Introductory Craft Skills, National Construction Career Test	National Center For Construction Education & Research (NCCER)
Cosmetology Assessment	National Occupational Competency Testing Institute (NOCTI)
Cosmetology Examination	SkillsUSA
Criminal Justice Assessment	National Occupational Competency Testing Institute (NOCTI)
Criminal Justice Examination/Crime Scene Investigation (CSI)	SkillsUSA
Customer Service Examination	SkillsUSA
Data Cabling Installer Certification (DCIC) Examination	Electronics Technicians Association, International (ETA)
Design and Preconstruction Assessment	National Occupational Competency Testing Institute (NOCTI)
Diesel Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Drafter Certification Examination	American Design Drafting Association
<b>Edison Electric Institute (EEI) Test Batteries (Pass any one test)</b>	<b>Edison Electric Institute (EEI)</b>
Electrical Construction Technology Assessment	National Occupational Competency Testing Institute (NOCTI)
Electrical Construction Wiring (Residential Wiring) Examination	SkillsUSA
Electrical Occupations Assessment	National Occupational Competency Testing Institute (NOCTI)
Electrical, National Construction Career Test	National Center For Construction Education & Research (NCCER)
Electronics Assessment	National Occupational Competency Testing Institute (NOCTI)
Electronics Module: DC (EM1) Examination	Electronics Technicians Association, International (ETA)
Electronics Module: AC (EM2) Examination	Electronics Technicians Association, International (ETA)
Electronics Module: Analog (EM3) Examination	Electronics Technicians Association, International (ETA)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Electronics Module: DC (EM4) Examination	Electronics Technicians Association, International (ETA)
Electronics Module: Comprehensive (EMS) Examination	Electronics Technicians Association, International (ETA)
Emergency and Fire Management Services Assessment	National Occupational Competency Testing Institute (NOCTI)
EPA Technician Certification Examination (Pass Levels I, II, or III)	Environmental Protection Agency (Authorized Entity)
Fiber Optic Network Cabling Certification Examination	RBT Systems, Inc.
Fiber Optics Installer Certification Examination	Electronics Technicians Association, International (ETA)
Firefighter I Certification Examination	Virginia Department of Fire Programs
Firefighter II Certification Examination	Virginia Department of Fire Programs
Fundamentals of Construction Assessment	National Occupational Competency Testing Institute (NOCTI)
Global Logistics Associate Certification Assessment	American Society of Transportation & Logistics
<del>Graphic Communication Technology Assessment</del> <b>Graphic Production Technology Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
Heating, Electrical, Air Conditioning Technology (HEAT) Examinations (Pass any one exam)	HVAC Excellence
Heating, Ventilation, Air Conditioning (HVAC) Assessment	National Occupational Competency Testing Institute (NOCTI)
Heating, Ventilation, Air Conditioning & Refrigeration (HVAC/R) Assessment	National Occupational Competency Testing Institute (NOCTI)
Heavy Equipment Operations Level One Assessment	National Center For Construction Education & Research (NCCER)
<b>Home Builders Institute (HBI) Pre-Apprenticeship Certificate Training (PACT) Assessments (Pass any one assessment)</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
HVAC, National Construction Career Test	National Center For Construction Education & Research (NCCER)
Industrial Electronics Assessment	National Occupational Competency Testing Institute (NOCTI)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Industrial Maintenance Mechanic Assessment	National Occupational Competency Testing Institute (NOCTI)
Installer (or Service) Core Certification (HVAC) Examination	North American Technician Excellence, Inc. (NATE)
<b>International Code Council (ICC) Certificates of Achievement Examinations (Pass any one exam)</b>	<b>International Code Council (ICC)</b>
Internetworking Examination	SkillsUSA
<b>IT Essentials 1 Examination (PC Hardware and Software) Cisco Certified Entry Network Technician (CCENT) Examination</b>	Cisco Systems
MSSC Certified Production Technician (CPT) Program Examinations (Pass any one exam)	Manufacturing Skill Standards Council (MSSC)
Machining Skills--Level I Examinations (Pass any one exam with performance component)	National Institute for Metalworking Skills (NIMS)
Marine Service Technology Examination	SkillsUSA
Masonry Examination	SkillsUSA
Maintenance Operations Assessment	National Occupational Competency Testing Institute (NOCTI)
Masonry Level One, National Construction Career Test	National Center For Construction Education & Research (NCCER)
Mechatronics-Level 1 Assessment	National Occupational Competency Testing Institute (NOCTI)
Motorcycle Service Technology Examination	SkillsUSA
<b>National Automotive Student Skills Standards Assessments-Automotive Service Excellence (ASE) Student Certification Assessments (Pass any one assessment from automotive service, automotive refinishing, collision repair, or diesel engine areas)</b>	<b>ASE-AYES-SkillsUSA Co-brand, SkillsUSA Automotive Service Excellence Program (ASE)</b>
Nail Care Examination	SkillsUSA
Network Cabling Specialist Certification Examinations (Pass copper and fiber examinations)	C-Tech Associates, Inc.
Performing Arts Assessment	National Occupational Competency Testing Institute (NOCTI)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
Photography Examination	SkillsUSA
Plumbing Assessment	National Occupational Competency Testing Institute (NOCTI)
Plumbing Examination	SkillsUSA
Plumbing-Heating-Cooling Contractors Educational Foundation Examinations (Pass any one exam)	Plumbing-Heating-Cooling Contractors (PHCC) Educational Foundation (Examinations administered by NOCTI)
Precision Machining Assessment	National Occupational Competency Testing Institute (NOCTI)
Protective Services Assessment	National Occupational Competency Testing Institute (NOCTI)
PrintED Certification Program Examinations (Pass any one exam)	Graphic Arts Education and Research Foundation (Examinations are administered by SkillsUSA)
Residential Construction Academy Examinations (Pass any one exam)	Home Builders Institute (Examinations are administered by National Occupational Competency Testing Institute)
SENSE Training Program Certification Examination (Level 1, Entry-Level Welder)	American Welding Society (AWS)
<b>Siemens Mechatronic Systems Certification Program Examinations (Pass any one exam)</b>	<b>Siemens AG</b>
Student Electronics Technician (SET) Certification Examination	Electronics Technicians Association, International (ETA)
Telecommunications Electronics Technician Certification Examination	Electronics Technicians Association, International (ETA)
Television Broadcasting Assessment Television Production Assessment	National Occupational Competency Testing Institute (NOCTI)
Television Video Production Examination	SkillsUSA
Technical Drafting Assessment	National Occupational Competency Testing Institute (NOCTI)
<b>Technical Theater Assessment</b>	<b>National Occupational Competency Testing Institute (NOCTI)</b>
Visual Arts Assessment	National Occupational Competency Testing Institute (NOCTI)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<del>Visual Communications Assessment</del> <b>Visual Communication and Multimedia Design Assessment</b>	National Occupational Competency Testing Institute (NOCTI)
Welding Assessment	National Occupational Competency Testing Institute (NOCTI)
Welding Examination	SkillsUSA
Welding, National Construction Career Test (or pass journey-level exam)	National Center For Construction Education & Research (NCCER)

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<b>PROFESSIONAL LICENSES</b>	
Barbers Examination	Board of Barbers and Cosmetology (Virginia Department of Professional and Occupational Regulation)
Cosmetology Examination	Board of Barbers and Cosmetology (Virginia Department of Professional and Occupational Regulation)
Licensed Practical Nurse Examination	Virginia Board of Nursing
Nail Technician Examination	Board of Barbers and Cosmetology (Virginia Department of Professional and Occupational Regulation)
FAA Private Pilot Written Test	Federal Aviation Administration
Real Estate Salesperson Examination	Virginia Real Estate Board (Dept. of Professional & Occupational Regulation)
<b>EXAMINATIONS</b>	
Advanced Placement Computer Science A Examination	The College Board
College Level Examination Program (CLEP): Financial Accounting Examination	The College Board
College Level Examination Program (CLEP): Information Systems and Computer Applications	The College Board
College Level Examination Program (CLEP): Introductory Business Law	The College Board
College Level Examination Program (CLEP): Principles of Management	The College Board
College Level Examination Program (CLEP): Principles of Marketing	The College Board
International Baccalaureate Computer Science (Standard Level) Examination	The International Baccalaureate Organization
International Baccalaureate Computer Science (Higher Level) Examination	The International Baccalaureate Organization
International Baccalaureate Design Technology (Standard Level) Examination	<b>The International Baccalaureate Organization</b>

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NAME OF CREDENTIAL	ISSUING ORGANIZATION
<a href="#">International Baccalaureate Design Technology (Higher Level) Examination</a>	<b>The International Baccalaureate Organization</b>
<a href="#">International Baccalaureate for Business and Management (Standard Level) Examination</a>	The International Baccalaureate Organization
<a href="#">International Baccalaureate Information Technology in a Global Society (Standard Level) Examination</a>	The International Baccalaureate Organization
<b>DELETIONS</b>	
Automotive Technician Standard Assessment	NOCTI
Aviation Maintenance (Secondary) Examination	SkillsUSA
Computer Programming Examination	SkillsUSA
Major Appliance Repair Examination	SkillsUSA
Practical Nursing Examination	SkillsUSA

Appendix C

Board of Education's Excellence in Civics Education Seal

IWCS Voluntary Community Service Document





## Appendix D

### NCAA Information



# NCAA RECRUITING FACTS

College sports offer student-athletes opportunities to learn, compete and succeed.

More than  
**460,000**  
Student-athletes

**19,000**  
Teams

**3** Divisions  
**1** Association

## DIVISION I

Division I schools, on average, enroll the most students, manage the largest athletics budgets, offer a wide array of academic programs and provide the most athletics scholarships.

### PARTICIPATION

- 173,500 student-athletes
- 346 colleges and universities

### ATHLETICS SCHOLARSHIPS

53 percent of all student-athletes receive some level of athletics aid

### ACADEMICS

2012 Graduation Success Rate: 81 percent\*

### OTHER STATS

**Average Enrollment:** 12,900  
**Average Number of Sports:** 18  
**Average Percentage of Student Body Participating in Sports:** 6 percent  
**Division I National Championships:** 26 (1 out of every 8.5 student-athletes participates)

## DIVISION II

Division II provides growth opportunities through academic achievement, high-level athletics competition and community engagement. Many participants are first-generation college students.

### PARTICIPATION

- 109,100 student-athletes
- 300 colleges and universities

### ATHLETICS SCHOLARSHIPS

56 percent of all student-athletes receive some level of athletics aid

### ACADEMICS

2012 Academic Success Rate: 71 percent\*

### OTHER STATS

**Average Enrollment:** 4,200  
**Average Number of Sports:** 15  
**Average Percentage of Student Body Participating in Sports:** 14 percent  
**Division II National Championships:** 25 (1 out of every 7 student-athletes participates)

## DIVISION III

The Division III experience provides an integrated environment that focuses on academic success while offering competitive athletics and meaningful non-athletics opportunities.

### PARTICIPATION

- 183,500 student-athletes
- 450 colleges and universities

### FINANCIAL AID

75 percent of all student-athletes receive some form of academic grant or need-based scholarship; institutional gift aid totals \$13,500 on average

### ACADEMICS

2012 Academic Success Rate: 87 percent\*

### OTHER STATS

**Average Enrollment:** 2,600  
**Average Number of Sports:** 18  
**Average Percentage of Student Body Participating in Sports:** 21 percent  
**Division III National Championships:** 28 (1 out of every 10 student-athletes participates)

Want to play NCAA sports? Visit [www.NCAA.org/playcollegesports](http://www.NCAA.org/playcollegesports)

\*Graduation rate for student-athletes, including those who transfer from one school to another.



# Facts about NCAA sports

## Does the NCAA award athletics scholarships?

Individual schools award athletics scholarships. Divisions I and II schools provide \$2.7 billion in athletics scholarships annually to more than 150,000 student-athletes. Division III schools, with more than 180,000 student-athletes, do not offer athletically related financial aid, but many student-athletes receive some form of academic grant or need-based scholarship.

## Do many high school athletes earn athletics scholarships?

Very few, in fact. About 2 percent of high school athletes are awarded some form of athletics scholarship to compete in college.

**Do NCAA student-athletes have difficulty meeting graduation requirements with the time demands of their sport?** While competing in college does require strong time-management skills and some thoughtful planning with academic advisors, on average NCAA student-athletes graduate at a higher rate than the general student body.

## Do many NCAA student-athletes go on to play professionally?

Fewer than 2 percent of NCAA student-athletes go on to be professional athletes. In reality, most student-athletes depend on academics to prepare them for life after college. Education is important. There are more than 460,000 NCAA student-athletes, and most of them will go pro in something other than sports.

### ESTIMATED PROBABILITY OF COMPETING IN NCAA ATHLETICS BEYOND HIGH SCHOOL

Student-Athletes	All Sports	Men's Basketball	Women's Basketball	Football	Baseball	Men's Ice Hockey	Men's Soccer
High School Student-Athletes	7,400,000	538,700	433,100	1,100,000	474,800	35,200	411,000
NCAA Student-Athletes	460,000	18,000	16,200	70,100	32,500	4,000	23,400
Percentage Moving from High School to NCAA	6%	3%	4%	6%	7%	11%	6%
Percentage Moving from NCAA to Professional	2%	1%	1%	2%	9%	1%	2%



# NCAA ELIGIBILITY CENTER QUICK REFERENCE GUIDE



## NCAA Division I Initial-Eligibility Requirements

### Core Courses: (16)

- **Initial full-time collegiate enrollment before August 1, 2016:**
  - Sixteen (16) core courses are required (see chart below for subject-area requirements).
- **Initial full-time collegiate enrollment on or after August 1, 2016:**
  - Sixteen (16) core courses are required (see chart below for subject-area requirements).
    - Ten (10) core courses completed before the seventh semester; seven (7) of the 10 must be in English, math or natural/physical science.
      - These courses/grades are "locked in" at start of the seventh semester (cannot be repeated for grade-point average [GPA] improvement to meet initial-eligibility requirements for competition).
  - Students who do not meet core-course progression requirements may still be eligible to receive athletics aid and practice in the initial year of enrollment by meeting academic redshirt requirements (see below).

### Test Scores: (ACT/SAT)

- Students must present a corresponding test score and core-course GPA on the sliding scale (see Page No. 2).
  - **SAT:** critical reading and math sections.
    - Best subscore from each section is used to determine the SAT combined score for initial eligibility.
  - **ACT:** English, math, reading and science sections.
    - Best subscore from each section is used to determine the ACT sum score for initial eligibility.
- All ACT and SAT attempts before initial full-time collegiate enrollment may be used for initial eligibility.
- Enter 9999 during ACT or SAT registration to ensure the testing agency reports your score directly to the NCAA Eligibility Center. Test scores on transcripts will not be used.

### Core Grade-Point Average:

- Only core courses that appear on the high school's List of NCAA Courses on the NCAA Eligibility Center's website ([www.eligibilitycenter.org](http://www.eligibilitycenter.org)) will be used to calculate your core-course GPA. Use this list as a guide.
- **Initial full-time collegiate enrollment before August 1, 2016:**
  - Students must present a corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.000) on Sliding Scale A (see Page No. 2).
  - Core-course GPA is calculated using the **best 16 core courses** that meet subject-area requirements.
- **Initial full-time collegiate enrollment on or after August 1, 2016:**
  - Students must present a corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.300) on Sliding Scale B (see Page No. 2).
  - Core-course GPA is calculated using the **best 16 core courses** that meet both progression (10 before seventh semester; seven in English, math or science; "locked in") and subject-area requirements.

DIVISION I Core-Course Requirement (16)	
4	years of English
3	years of math (Algebra I or higher)
2	years of natural/physical science (1 year of lab if offered)
1	year of additional English, math or natural/physical science
2	years of social science
4	years of additional courses (any area above, foreign language or comparative religion/philosophy)

DIVISION I – 2016 Qualifier Requirements	
<i>*Athletics aid, practice, and competition</i>	
•	16 core courses
○	Ten (10) core courses completed before the start of seventh semester. Seven (7) of the 10 must be in English, math or natural/physical science.
▪	"Locked in" for core-course GPA calculation.
•	Corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.300) on Sliding Scale B (see Page No. 2).
•	Graduate from high school.

DIVISION I – 2016 Academic Redshirt Requirements	
<i>*Athletics aid and practice (no competition)</i>	
•	16 core courses
○	No grades/credits "locked in" (repeated courses after the seventh semester begins may be used for initial eligibility).
•	Corresponding test score (ACT sum score or SAT combined score) and core-course GPA (minimum 2.000) on Sliding Scale B (see Page No. 2).
•	Graduate from high school.

<b>Sliding Scale A</b>		
<i>Use for Division I prior to August 1, 2016</i>		
<b>NCAA DIVISION I SLIDING SCALE</b>		
3.550 & above	400	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	59
2.700	730	60
2.675	740-750	61
2.650	760	62
2.625	770	63
2.600	780	64
2.575	790	65
2.550	800	66
2.525	810	67
2.500	820	68
2.475	830	69
2.450	840-850	70
2.425	860	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	80
2.125	960	81
2.100	970	82
2.075	980	83
2.050	990	84
2.025	1000	85
2.000	1010	86

<b>Sliding Scale B</b>		
<i>Use for Division I beginning August 1, 2016</i>		
<b>NCAA DIVISION I SLIDING SCALE</b>		
3.550	400	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	60
2.700	740	61
2.675	750	61
2.650	760	62
2.625	770	63
2.600	780	64
2.575	790	65
2.550	800	66
2.525	810	67
2.500	820	68
2.475	830	69
2.450	840	70
2.425	850	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.299	910	76
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	81
2.125	970	82
2.100	980	83
2.075	990	84
2.050	1000	85
2.025	1010	86
2.000	1020	86

For more information, visit [www.eligibilitycenter.org](http://www.eligibilitycenter.org) or [www.2point3.org](http://www.2point3.org).

# NCAA ELIGIBILITY CENTER QUICK REFERENCE GUIDE



## Division II Initial-Eligibility Requirements

### Core Courses

- **Division II currently requires 16 core courses.** See the chart below.
- **Beginning August 1, 2018**, to become a full or partial qualifier for Division II, all college-bound student-athletes must complete the 16 core-course requirement.

### Test Scores

- **Division II currently requires a minimum SAT score of 820 or an ACT sum score of 68. Beginning August 1, 2018**, Division II will use a sliding scale to match test scores and core-course grade-point averages (GPA). The sliding scale for those requirements is shown on Page No. 2 of this sheet.
- The SAT score used for NCAA purposes includes **only** the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a **sum** of the following four sections: English, mathematics, reading and science.
- **When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripts will not be used.**

### Grade-Point Average

- Be sure to look at your high school's List of NCAA Courses on the NCAA Eligibility Center's website ([www.eligibilitycenter.org](http://www.eligibilitycenter.org)). Only courses that appear on your school's approved List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.
- The current **Division II** core GPA requirement is a minimum of 2.000. **Division II** core GPA required to be eligible for competition on or after August 1, 2018, is 2.200 (corresponding test-score requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- The minimum **Division II** core GPA required to receive athletics aid and practice as a partial qualifier on or after August 1, 2018, is 2.000 (corresponding test-score requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- Remember, the NCAA core GPA is calculated using NCAA core courses only.

#### **DIVISION II 16 Core Courses**

- 3 years of English.
- 2 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 3 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).

**DIVISION II  
COMPETITION SLIDING SCALE**

*Use for Division II beginning August 1, 2018*

3.300 & above	400	37
3.275	410	38
3.250	420	39
3.225	430	40
3.200	440	41
3.175	450	41
3.150	460	42
3.125	470	42
3.100	480	43
3.075	490	44
3.050	500	44
3.025	510	45
3.000	520	46
2.975	530	46
2.950	540	47
2.925	550	47
2.900	560	48
2.875	570	49
2.850	580	49
2.825	590	50
2.800	600	50
2.775	610	51
2.750	620	52
2.725	630	52
2.700	640	53
2.675	650	53
2.650	660	54
2.625	670	55
2.600	680	56
2.575	690	56
2.550	700	57
2.525	710	58
2.500	720	59
2.475	730	60
2.450	740	61
2.425	750	61
2.400	760	62
2.375	770	63
2.350	780	64
2.325	790	65
2.300	800	66
2.275	810	67
2.250	820	68
2.225	830	69
2.200	840 & above	70 & above

**DIVISION II  
PARTIAL QUALIFIER SLIDING SCALE**

*Use for Division II beginning August 1, 2018*

3.050 & above	400	37
3.025	410	38
3.000	420	39
2.975	430	40
2.950	440	41
2.925	450	41
2.900	460	42
2.875	470	42
2.850	480	43
2.825	490	44
2.800	500	44
2.775	510	45
2.750	520	46
2.725	530	46
2.700	540	47
2.675	550	47
2.650	560	48
2.625	570	49
2.600	580	49
2.575	590	50
2.550	600	50
2.525	610	51
2.500	620	52
2.475	630	52
2.450	640	53
2.425	650	53
2.400	660	54
2.375	670	55
2.350	680	56
2.325	690	56
2.300	700	57
2.275	710	58
2.250	720	59
2.225	730	60
2.200	740	61
2.175	750	61
2.150	760	62
2.125	770	63
2.100	780	64
2.075	790	65
2.050	800	66
2.025	810	67
2.000	820 & above	68 & above

For more information, visit the NCAA Eligibility Center website at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

Appendix E

Early College Scholar Agreement

## GOVERNOR'S *EARLY COLLEGE SCHOLARS* AGREEMENT

The responsibilities of each party are outlined herein and the corresponding signature assures acceptance of responsibility of each party.

### The student agrees to:

- Earn an Advanced Studies Diploma with a Governor's Seal. To receive a Governor's seal, students must:
  - Complete the requirements for the Advanced Studies Diploma;
  - Earn a "B" average or higher; and
  - Successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses
- Earn at least 15 transferable college credits while enrolled in high school. College credits toward completion of this Agreement will be considered earned by:
  - Completing dual enrollment/dual credit courses and earning a "C" or better in the courses
  - Completing advanced placement courses i.e., AP, IB or Cambridge **and**
    - Scoring a "3" or higher on the AP examinations **or**
    - Scoring a "4" or higher on any form of the IB examinations **or**
    - Scoring a "D" or better on the Cambridge examinations
  - Earning college credits by passing College Level Examination Program (CLEP) examinations
  - Completing college-level courses and documenting credit awarded
- Apply and be accepted to a college or university

\_\_\_\_\_  
Student Name (Printed)

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

### The parent/guardian agrees to:

- Support and monitor student's academic work and progress in school, particularly as it relates to fulfillment of the requirements for the Governor's *Early College Scholars* Agreement.

**I understand that the actual number of transferable college credits awarded depends on the criteria of the admitting college or university.**

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

### The high school agrees to:

- Provide the student opportunities to access college-level courses and/or advanced placement courses needed to fulfill this agreement.
- Provide the counseling services needed to fulfill the requirements of the Governor's *Early College Scholars* Agreement, including assisting students in developing a program of study.
- Provide the Virginia Department of Education with data regarding participation and completion of the Governor's *Early College Scholars* program.

\_\_\_\_\_  
High School Principal Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
School Counselor

\_\_\_\_\_  
Date

## Appendix F

### High School Credit Waiver Request



## HIGH SCHOOL CREDIT WAIVER REQUEST

In accordance with the Virginia Department of Education's policy on the deletion of a high school course grade (8 VAC 20-131-90), I would like to have my child's high school credit-bearing course grade omitted from his/her high school transcript. I understand that by signing this waiver my child's grade will not appear on the transcript, and that he/she will have to repeat the subject at the high school level.

Student's Name: \_\_\_\_\_

Course Waived: \_\_\_\_\_

Parent's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

This form must be returned to the middle school guidance counselor on or before July 15<sup>th</sup> of the current school year.

Adopted: May 13, 2010

## Appendix G

### Examples of High School 4 Year Plans incorporating CTE Courses

Isle of Wight County Schools  
Plan of Study (Animal Systems)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Regular or Honors English 9	Algebra I	Regular or Honors Earth Science	Regular or Honors World History I	Health/PE9	Algebra, Functions, and Data Analysis	Spanish I	Spanish II
	Year 2	Regular or Honors English 10	Regular or Honors Geometry	Regular or Honors Biology	Regular or Honors World History II	Health/PE10	Programming	Advanced Programming	Art I
	Year 3	Regular or Honors English 11	Regular or Honors Algebra II	Oceanography	Regular or Honors VA/US History	Introduction to Animal Systems	Small Animal Care I	Art II	Art III
	Year 4	Regular or DE English 12	DE Statistics and Probability	Chemistry	Regular or Honors Government	Economics and Personal Finance	Small Animal Care II	Agriculture Business Management	Agriculture Business Operations
Miscellaneous Information: DE (Dual Enrollment) received local and college credit.									
<u><b>Possible Industry Certifications with the CTE courses listed above:</b></u>  College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Computer Programming Assessment, Global Standard Exam, Information Systems and Computer Applications CLEP Exam, Microsoft Certified Professional Exam, National Career Readiness Assessment, Software Development Test, Agricultural Biotechnology Assessment, Animal Systems Assessment, Beef Quality Assurance Assessment, Pork Quality Assurance Assessment, Certified Veterinary Assistant-Level 1 Exam, Pet Sitters Exam, Small Animal Care Exam, Small Animal Science and Technology Assessment, and Agribusiness Exam			<u><b>Concentration Sequences with the CTE courses listed above:</b></u>  1. Programming and Advanced Programming 2. Introduction to Animal Systems and Small Animal Care I 3. Small Animal Care I and II 4. Agriculture Business Management and Operations			<u><b>Possible Work-Based Learning Opportunities with the CTE courses listed above:</b></u>  Coop, Internship and Job Shadowing			

Isle of Wight County Schools  
Plan of Study (Culinary)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Honors English 9	Honors Geometry	Honors Biology	Honors World History I	Honor Algebra II	Spanish II	Health/PE9	Spanish III
	Year 2	Honors English 10	DE Math Analysis	Chemistry	Honors World History II	Art I	Art II	Health/PE10	DE Probability and Statistics
	Year 3	AP English Language	DE Calculus	AP Chemistry	Honor VA/US History	AP English Language	AP Chemistry	Culinary I	Culinary II
	Year 4	AP English Literature	AP Calculus AB	Physics	AP Government	AP English Literature	AP Calculus AB	AP Government	Coop
<p>Miscellaneous Information: DE (Dual Enrollment) received local and college credit. The student would need to take Economics and Personal Finance online as a 5<sup>th</sup> course.</p>									
<p><b><u>Possible Industry Certifications with the CTE courses listed above:</u></b></p> <p>College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, ACF Culinary Arts Exam, ACF Retail Commercial Baking Assessment, Commercial Baking Exam, Commercial Foods Assessment, Culinary Arts Assessment, Culinary Arts Exam, Culinary Arts Level I: Prep Cook Assessment, Culinary Arts Level II: Cook Assessment, ManageFirst Examination, ProStart Program-Level I and II Exam, Restaurant-Food-Beverage Services Assessment, and ServSafe Manager Exam</p>				<p><b><u>Concentration Sequences with the CTE courses listed above:</u></b></p> <p>1. Culinary I and II</p>			<p><b><u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u></b></p> <p>Coop and Internship</p>		

Isle of Wight County Schools  
Plan of Study (Governor's School for Science and Technology)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Honors English 9	Honors Geometry	Honors Biology	Honors World History I	Honors Algebra II	Spanish II	Spanish II	Engineering Explorations I
	Year 2	Honors English 10	DE Math Analysis	Chemistry	Honors World History II	DE Calculus	Physics	Economics and Personal Finance	Engineering Analysis and Applications II
	Year 3	AP English Language	AP English Language	AP VA/US History	AP VA/US History	Governor's School for Science and Technology			
	Year 4	AP English Literature	AP English Literature	AP Government	AP Government	Governor's School for Science and Technology			
<p><b>Miscellaneous Information:</b> DE (Dual Enrollment) received local and college credit. All the courses at GSST are DE. The student may take Economics and Personal Finance online as a 5<sup>th</sup> course, if he/she needs an additional course during the school day. GSST prepares students for acceptance into top universities. Students must apply and be accepted to participate in this program.</p>									
<p><b><u>Possible Industry Certifications with the CTE courses listed above:</u></b></p> <p>College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam</p>				<p><b><u>Concentration Sequences with the CTE courses listed above:</u></b></p> <ol style="list-style-type: none"> <li>Engineering Explorations I and Engineering Analysis and Applications II</li> </ol>			<p><b><u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u></b></p> <p>Mentorship and Job Shadowing</p>		

Isle of Wight County Schools  
Plan of Study (Engineering)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Regular or Honors English 9	Regular or Honors Geometry	Regular or Honors Earth Science	Regular or Honors World History I	Health/PE9	Spanish II	Information Technology Fundamentals	Spanish III
	Year 2	Regular or Honors English 10	Regular or Honors Algebra II	Regular or Honors Biology	Regular or Honors World History II	Introduction to Power, Structural, and Technical Systems	Programming	Health/PE10	Advanced Programming
	Year 3	Regular or Honors English 11	DE Math Analysis	Physics	Regular or Honors VA/US History	Engineering Explorations I	Engineering Analysis and Applications II	Agricultural Business Operations	Art I
	Year 4	Regular or DE English 12	DE Calculus	AP Physics	Regular or Honors Government	AP Physics	Engineering Concepts and Processes III	Engineering Practicum IV	Art II
<p>Miscellaneous Information: DE (Dual Enrollment) received local and college credit. The student would need to take Economics and Personal Finance online as a 5<sup>th</sup> course.</p>									
<p><b><u>Possible Industry Certifications with the CTE courses listed above:</u></b> College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Agricultural Mechanics and Technology Exam, Agriculture Mechanics Assessment, Master Service Technician Exam, Outdoor Power Equipment Technology Exam, Power Equipment Technology Exam, Small Engine Technology Exam, Certified Internet Web Professional Exam, Computer Programming Assessment, Global Standard Exam, Information Systems and Computer Applications CLEP Exam, Microsoft Certified Professional Exam, National Career Readiness Assessment, Software Development Test, Pre-Engineering Industry Certification Examination, Design and Preconstruction Assessment, and Engineering Technology Examination</p>			<p><b><u>Concentration Sequences with the CTE courses listed above:</u></b></p> <ol style="list-style-type: none"> <li>Information Technology Fundamentals and Programming</li> <li>Programming and Advanced Programming</li> <li>Engineering Explorations I and Engineering Analysis and Applications II</li> <li>Engineering Concepts and Processes III and Engineering Practicum IV</li> <li>Introduction to Power, Structural, and Technical Systems and Agricultural Business Operations</li> </ol>			<p><b><u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u></b> Mentorship and Job Shadowing</p>			

Isle of Wight County Schools  
Plan of Study (Plant Systems)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Regular or Honors English 9	Regular or Honors Geometry	Regular or Honors Earth Science	Regular or Honors World History I	Health/PE9	Spanish II	Concert Band I	Spanish III
	Year 2	Regular or Honors English 10	Regular or Honors Algebra II	Regular or Honors Biology	Regular or Honors World History II	Health/PE10	DE Probability and Statistics	Concert Band II	Introduction to Plant Systems
	Year 3	Regular or Honors English 11	DE Math Analysis	Chemistry	Regular or Honors VA/US History	Art I	Horticulture Sciences	Concert Band III	Greenhouse Plant Production and Management
	Year 4	Regular or DE English 12	DE Calculus	Physics	Regular or Honors Government	Economics and Personal Finance	Art II	Concert Band IV	Agriculture Business Operations
Miscellaneous Information: DE (Dual Enrollment) received local and college credit.									
<u>Possible Industry Certifications with the CTE courses listed above:</u>  Agricultural Biotechnology Assessment, College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Commercial Pesticide Applicator Examination, Floriculture Assessment, Floriculture: Greenhouse Assessment, Horticulture-Landscaping Assessment, Private Applicator Examination, and Registered Technician Examination			<u>Concentration Sequences with the CTE courses listed above:</u>  1. Introduction to Plant Systems and Agriculture Business Operations 2. Introduction to Plant Systems and Horticulture Sciences 3. Horticulture Sciences and Greenhouse Plant Production and Management 4. Greenhouse Plant Production Management and Agriculture Business Operations			<u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u>  Mentorship and Job Shadowing			

Isle of Wight County Schools  
Plan of Study (Manufacturing Systems Technology)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	English 9	Algebra I – Part 1	Earth Science	World History I	Health/PE9	Spanish I	Algebra I – Part 2	Theater Arts I
	Year 2	English 10	Algebra, Functions, and Data Analysis	Biology	World History II	Health/PE10	Spanish II	Information Technology Fundamentals	Theater Arts II
	Year 3	English 11	Geometry	Oceanography	VA/US History	Programming	Manufacturing Systems Technology I	Advanced PE I	Theater Arts III
	Year 4	English 12	Algebra II	Physics	Government	Advanced PE II	Manufacturing Systems Technology II	Advance Programming	Theater Arts IV
Miscellaneous Information: The student would need to take Economics and Personal Finance online as a 5 <sup>th</sup> course.									
<u>Possible Industry Certifications with the CTE courses listed above:</u>  College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Certified Internet Web Professional Exam, Computer Programming Assessment, Global Standard Exam, Information Systems and Computer Applications CLEP Exam, Microsoft Certified Professional Exam, National Career Readiness Assessment, Software Development Test, Manufacturing Technology Assessment, and Manufacturing Technology Exam			<u>Concentration Sequences with the CTE courses listed above:</u>  1. Information Technology Fundamentals and Programming 2. Programming and Advanced Programming 3. Manufacturing Systems Technology I and II			<u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u>  Mentorship and Job Shadowing			

Isle of Wight County Schools  
Plan of Study (Emergency Medical Technician)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Regular or Honors English 9	Regular or Honors Geometry	Regular or Honors Earth Science	Regular or Honors World History I	Heath/PE9	Art I	Spanish I	Spanish II
	Year 2	Regular or Honors English 10	Regular or Honors Algebra II	Regular or Honors Biology	Regular or Honors World History II	Health/PE10	Spanish IV	Functions Trig	Art II
	Year 3	Regular or Honors English 11	DE Math Analysis	Anatomy and Physiology	AP US History	Small Animal Care I	Small Animal Care II	AP US History	DE Calculus
	Year 4	Regular or DE English 12	AP Biology	AP Biology	Regular or Honors Government	Emergency Medical Technician I	Emergency Medical Technician I	Emergency Medical Technician II	Emergency Medical Technician II
<p>Miscellaneous Information: DE (Dual Enrollment) received local and college credit. The student would need to take Economics and Personal Finance online as a 5<sup>th</sup> course.</p>									
<p><b><u>Possible Industry Certifications with the CTE courses listed above:</u></b></p> <p>College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Agricultural Biotechnology Assessment, Animal Systems Assessment, Beef Quality Assurance Assessment, Pork Quality Assurance Assessment, Certified Veterinary Assistant-Level 1 Exam, Pet Sitters Exam, Small Animal Care Exam, Small Animal Science and Technology Assessment, Certified EKG Technician Exam, Emergency and Fire Management Services Assessment, and Emergency Medical Responder Exam</p>				<p><b><u>Concentration Sequences with the CTE courses listed above:</u></b></p> <ol style="list-style-type: none"> <li>1. Small Animal Care I and II</li> <li>2. Emergency Medical Technician I and II</li> </ol>			<p><b><u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u></b></p> <p>Coop and Internship</p>		

Isle of Wight County Schools  
Plan of Study (Nurse Aide)

Secondary Plan	Year	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives			
	Year 1	Regular or Honors English 9	Regular or Honors Geometry	Regular or Honors Earth Science	Regular or Honors World History I	Heath/PE9	Spanish II	Spanish III	Art I
	Year 2	Regular or Honors English 10	Regular or Honors Algebra II	Regular or Honors Biology	Regular or Honors World History II	Health/PE10	DE Math Analysis	Spanish IV	Art II
	Year 3	AP English Language	DE Calculus	Anatomy and Physiology	AP US History	AP English Language	Virginia Teachers for Tomorrow I	AP US History	Virginia Teachers for Tomorrow II
	Year 4	DE English 12	AP Biology	AP Biology	Regular or Honors Government	Nurse Aide I	Nurse Aide I	Nurse Aide II	Nurse Aide II
<p>Miscellaneous Information: DE (Dual Enrollment) received local and college credit. The student would need to take Economics and Personal Finance online as a 5<sup>th</sup> course.</p>									
<p><b><u>Possible Industry Certifications with the CTE courses listed above:</u></b></p> <p>College and Work Readiness Assessment, National Career Readiness Assessment, Workplace Readiness Skills for the Commonwealth Exam, Early Childhood Education Exam, Education and Training Assessment, Education Fundamentals Assessment, ParaPro Assessment, Praxis-Part 1 Exam, Certified Nurse Aide Exam, Diagnostic Services Assessment, Health Assisting Assessment, Health Information Assessment, Home Health Aide Assessment, National Health Science Assessment, Nurse Assisting Exam, Nursing Assisting Assessment, and Therapeutic Services Assessment</p>			<p><b><u>Concentration Sequences with the CTE courses listed above:</u></b></p> <ol style="list-style-type: none"> <li>1. Virginia Teachers for Tomorrow I and II</li> <li>2. Nurse Aide I and II</li> </ol>			<p><b><u>Possible Work-Based Learning Opportunities with the CTE courses listed above:</u></b></p> <p>Virginia Teaches for Tomorrow Mentorship and Job Shadowing</p> <p>Nurse Aide Coop and Internship</p>			

Appendix H

Governor's School of Science and Technology

Strand Layout

**Program Model for GSST, 2016-2017 SY**

(College Credit Subject to Review)

**Engineering Strand** (Prerequisites - 2 of the following sciences: Biology, Chemistry and/or Physics, with a math minimum of Pre-Calculus.

11th grade year	Calculus-based Engineering Physics I & II <i>2 HS/8TNCC credits</i>	Research Methodology & Ethics <i>1 HS /3 TNCC credits* pending approval</i>	Calculus / Multivariable-Linear Algebra (MV-LA) <i>1 HS/8 TNCC credits 1 HS/7 TNCC credits for MV-LA</i>	4 HS/16 college credits
12th grade year	Calculus-based Engineering Physics III & IV: Engineering Design <i>2 HS / 8TNCC credits</i>	Environmental Science / Honors Research & Methodology <i>2 HS credits for Env Sci / HR&amp;M 4 TNCC credits for Env Sci 2 TNCC credits for HR&amp;M</i>	Multivariable-Linear Algebra / Statistics / Differential Equations <i>1 HS/7 TNCC credits for MV-LA 1 HS/3 TNCC credits for Statistics 1 HS credit for Differential Equations</i>	5 HS/15-19 college credits  Total 9 HS/31-35 college credits

**\*Biological Science Strand** (Prerequisites - Biology and Chemistry, with a math minimum of Algebra II/Trig).

11th grade year	Advanced Chemical Analysis <i>2 HS/8 TNCC credits</i>	Research Methodology & Ethics <i>1 HS /3 TNCC credits* pending approval</i>	Modern Pre-Calculus / Calculus / Multivariable-Linear Algebra <i>1 HS/6 TNCC credits for Pre-Calculus 1 HS/8 TNCC credits for Calculus 1 HS/7 TNCC credits for MV-LA</i>	4 HS/14-16 college credits
12th grade year	Advanced Biological Analysis <i>2 HS/8 TNCC credits</i>	Environmental Science / Honors Research & Methodology <i>2 HS credits for Env Sci / HR&amp;M 4 TNCC credits for Env Sci 2 TNCC credits for HR&amp;M</i>	Calculus / Multivariable-Linear Algebra / Statistics / Differential Equations <i>1 HS/8 TNCC credits for Calculus 1 HS/7 TNCC credits for MV-LA 1 HS/3 TNCC credits for Statistics 1 HS credit for Differential Equations</i>	5 HS/17-22 college credits  Total 9 HS/31-38 college credits

**Scientific Programming Strand** (Prerequisites - 2 of the following sciences: Biology, Chemistry and/or Physics, with a math minimum of Algebra II/Trig ).

11th grade year	Scientific Programming I & Inquiry Physics <i>2 HS credits</i>	Research Methodology & Ethics <i>1 HS /3 TNCC credits* pending approval</i>	Modern Pre-Calculus / Calculus / Multivariable-Linear Algebra <i>1 HS/6 TNCC credits for Pre-Calculus 1 HS/8 TNCC credits for Calculus 1 HS/7 TNCC credits for MV-LA</i>	4 HS/6-8 college credits
12th grade year	Scientific Programming II & Inquiry Physics <i>2 HS/11TNCC credits</i>	Environmental Science / Honors Research & Methodology <i>2 HS credits for Env Sci / HR&amp;M 4 TNCC credits for Env Sci 2 TNCC credits for HR&amp;M</i>	Calculus / Multivariable-Linear Algebra / Statistics / Differential Equations <i>1 HS/8 TNCC credits for Calculus 1 HS/7 TNCC credits for MV-LA 1 HS/3 TNCC credits for Statistics 1 HS credit for Differential Equations</i>	5 HS/20-25 college credits  Total 9 HS/28-33 college credits

**\*Biological Science - It is recommended that students take high school Physics at their home school division.**