



PATRICK COUNTY HIGH SCHOOL  
PROGRAM OF STUDIES  
2024-2025

*The mission of Patrick County High School is to build a foundation for lifelong learning that prepares students for responsible citizenship.*

Patrick County High School  
215 Cougar Lane  
Stuart, VA 24171  
(276) 694-7137

# Principal's Message

Dear Cougar Students and Families,

I want to express my immense gratitude for the chance to collaborate with the students, faculty, staff, and community members at Patrick County High School. I'm excited about the prospect of continuing our work together in the upcoming school year.

This Program of Studies lays out the academic and elective course offerings for our students in grades 8-12, detailing the course sequence and graduation requirements for the 2024-2025 school year. The goal is to provide students and families with the information they need to make informed decisions about the opportunities available at PCHS.

Please use this guide to make the best choices for your class schedules, course selections, and future college or career paths. Take the time to familiarize yourself with the offerings at PCHS and explore what interests you.

As you decide on your courses, consider these questions:

- What are my strengths?
- What do I want to do after graduation? Work? Military? Trade school? Two-year school? Four-year school?
- Which courses will help me achieve those goals? (refer back to #2)
- What are my long-term plans, and how am I going to get there?

My deepest hope is that every student I've encountered, no matter the capacity, gets exactly what they need while interacting with me. I aim to lead the way in preparing students to confidently pursue their dreams—through hard work, seeking answers to their questions, and developing into respectful and tenacious citizens. Every adult at PCHS is here to help you achieve that. Cougar students and families, you deserve it.

Best wishes for the new school year—enjoying all it has to offer, including academics, electives, extra-curricular activities, and time with friends and family.

Sincerely,

***Hope Perry***

Hope Perry  
PCHS Principal

The Patrick County School Board does not unlawfully discriminate on the basis of age, sex, race, color, religion, disability, or national origin in its employment practices or educational programs and activities. The Administrator for Special Education is designated as coordinator for non-discrimination for access to and implementation of programs under Section 504 and the American with Disabilities Act. The Assistant Superintendent of Administration and Human Resources is designated as coordinator for non-discrimination regarding personnel matters under Section 504, the American with Disabilities Act and Title IX. Specific complaints of alleged discrimination under Title VI of the Civil Rights Act should be referred to the Director of Operations as well.

# HIGH SCHOOL CURRICULUM

## General Information

The information in this guide is designed to help students and parents with the selection of courses for eighth 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 counselors can help with planning by analyzing test scores and records of past achievements and by discussing current interests and long-term goals. School counselors also have up-to-date information available about various training programs, schools, colleges, universities, and employment possibilities.

## Registration

During registration, students will be given information concerning course selection for the coming year. The information in this guide should be used in planning a program of studies. The courses listed will be offered for the school year only if there is sufficient enrollment and available staff and funding. Grade levels listed for courses indicate the grade(s) in which the course is normally taken. All students will be expected to maintain a full-day schedule of classes in order to meet at least the minimum standards necessary for graduation as mandated by Patrick County Public Schools and the Virginia State Board of Education.

Any student wishing to be a part of the D-Squared program or wishing to enroll in a dual enrollment course during the 2024-2025 school year must have all necessary P&HCC registration paperwork completed by the PCHS registration day.

## Access to Courses

Course descriptions indicate if any prerequisite courses are required in order to enroll in a class. A minimum enrollment is required in order for a class to be offered: PCHS minimum enrollment is 12 and P&HCC minimum enrollment is 15.

## Standards of Learning Tests

Students must take end-of-course Standards of Learning (SOL) tests which are applicable to their remaining graduation requirements (listed on pgs. 9-17) or if needed to meet federal accountability requirements. These tests will be administered following course instruction. Students who successfully complete a course and who achieve a passing score on an end-of-course SOL test or a substitute test for that course shall be awarded a verified credit if needed to meet graduation requirements. End-of-course tests that are available are listed in the following chart. Students who pass an SOL course but fail the SOL test are given every opportunity to retake the SOL test. To assist in planning, we ask the student to submit in writing, by the following deadlines, his/her intent of testing:

Fall Testing Administration: by September 30th  
Spring Testing Administration: by January 31st  
Summer Testing Administration: by May 30th

When this opportunity arises, students are given a refusal slip if they do not wish to retake that SOL. This slip must be signed by the student, parent and School Testing Coordinator.

## Counseling

School counselors, together with parents, assist students in developing self-understanding in order to determine the best use of their abilities. Counselors encourage students to examine educational and career opportunities and to make realistic plans and decisions for the future.

Educational and career planning are reviewed with each student annually. Both individual and group counseling services are available for those students who are experiencing social, emotional, or academic difficulties. Parents are encouraged to meet with counselors if they have concerns about their child's progress and to attend meetings relating to educational planning and the instructional programs offered.

## Gifted Education

The gifted education program provides services for students in accordance with the Standards of Quality. The program is designed to address individual learning styles, needs and interests. Patrick County Public Schools require appropriately differentiated instructional services for students at all grade levels. The Patrick County Public Schools Local Plan for the Education of the Gifted provides detailed information on referral and identification processes as well as the services provided for identified students.

SOL Tests			
ENGLISH	MATH	SCIENCE	SOCIAL STUDIES
<ul style="list-style-type: none"><li>English 8 Integrated Reading &amp; Writing*</li><li>English 10 Writing†</li><li>English 11 Integrated Reading &amp; Writing</li></ul> <p>*Not for verified credit</p>	<ul style="list-style-type: none"><li>Math 8*</li><li>Algebra I</li><li>Geometry</li><li>Algebra II</li></ul> <p>*Not for verified credit</p>	<ul style="list-style-type: none"><li>Physical Science*</li><li>Earth Science</li><li>Biology</li><li>Chemistry</li></ul> <p>*Not for verified credit</p>	<ul style="list-style-type: none"><li>World History to 1500 AD</li><li>World History from 1500 AD</li><li>World Geography</li><li>VA and US History</li></ul>

## **Programs for Students with Disabilities**

Special education is an essential part of the total program of public education in our community, sharing with elementary, middle, secondary, and technical education the responsibility for providing instruction, training, and necessary supportive services for all children of Patrick County. The educational interests of children with various types of exceptionality can best be served when they are accepted as an integral part of the total school program. As the law mandates, the education of students with disabilities in the “least restrictive environment” is emphasized. Special education, as is true for all education, is based on the fundamental concept of the dignity and worth of the human personality. The school division’s commitment is to provide an appropriate program for all children with disabilities.

## **English Learners (EL)**

At each grade level, EL students engage in instructional activities to increase listening, speaking, reading and writing skills. While building on their prior knowledge and learning new material, students are provided support services through a cohesive program. Proficiency is determined by the WIDA WAPT Screening Assessment and/or the WIDA ACCESS Test. Students build Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) through an inclusion model.

## **Remediation Programs**

Remedial education in the subject areas of reading, English, science, history/social sciences and mathematics are offered for eligible students experiencing difficulty with Standards of Learning concepts. Remediation programs are offered through after-school tutoring and in-school remediation services provided prior to SOL testing.

## **Grade Removal Notification**

This notice is to inform parents of rising ninth-grade students that, according to Standards of Accreditation 8VAC-20-131-90, they have the right to have their child’s grade omitted from his/her transcript for the high school credit courses in which their child was enrolled during their eighth grade year. Should parents/guardians choose to omit their student’s grade, the student will not receive credit for the course. To have a child’s grade expunged, parents should submit a written request to the principal of the high school prior to registration of the student’s ninth grade year.

## **Repeating a Course**

The grade for any failed class shall remain a part of a student’s academic transcript. Students who repeat a failed class shall have both course grades recorded.

## **Credit Recovery**

Students may be given an opportunity to complete the requirements of specific failed courses through alternative methods that utilize online credit recovery program, after-school, and summer school options.

## **Alternative Education**

An alternative education program may be offered for students in grades eight through twelve who are not succeeding in the traditional school environment. A regional alternative school is available for students in grades eight through twelve who have experienced trouble with juvenile authorities or have multiple suspensions or an expulsion.

## Promotion Policies

Promotion to the next grade is based on the total cumulative number (units) of credits earned by a student at the end of the school year. They are:

From Grade 8 to Grade 9	Promotion or Placement
From Grade 9 to Grade 10	6 credits
From Grade 10 to Grade 11	12 credits
From Grade 11 to Grade 12	18 credits

## Course Changes

The student benefits from a well-planned schedule that addresses individual needs and does not require later adjustments that might disrupt the learning process. Commitments for staff, textbooks, and supplies are made based upon the courses selected; therefore, schedule changes are discouraged. If there are extenuating circumstances, requests for schedule changes are carefully reviewed based on the following:

- Scheduling error has occurred.
- Student has changed career goal as confirmed by a counselor.
- Student has been scheduled for a course which is not compatible with abilities.
- Student has not met course prerequisites. Student has failed a required course for graduation.
- Student schedule needs to be balanced academically between the two semesters.

Revisions to balance academic loads and/or sequence courses should be addressed BEFORE the school year begins. Students having any problems with his/her schedule should contact their school counselor to discuss the matter during school office hours by visit, email, or phone before the start of the 2024-2025 school year. Once a student is enrolled in a course for a maximum of 20 instructional hours, no schedule changes will be made. All students at PCHS must be registered in eight units each school year and four courses each semester unless provisions have been approved. Additional credits may be obtained after-school through the cooperative education program and the approved course recovery program.

## Driver Education

The classroom driver education course is offered as part of the tenth grade health education curriculum. When students complete the classroom phase and have secured a learner's permit, they may sign up to take behind-the-wheel driver instruction. Students are responsible for providing payment for the designated fee associated with this program when signing-up.

## D<sup>2</sup> or D-Squared the Dual Degree Program at Patrick County High School

D<sup>2</sup> is a partnership between Patrick & Henry Community College and Patrick County Public Schools. Students admitted to D<sup>2</sup> will earn an Associate's Degree from Patrick & Henry Community College by taking courses during their junior and senior years of high school. Courses will be taught at Patrick County High School and P&HCC Stuart Campus.

Students interested in enrolling should contact the PCHS Student Services Department the spring of their sophomore year for an application.

## Governor's School

Governor's Schools provide appropriate learning endeavors for gifted students in Summer Residential Governor's Schools (SRsGS) and the Summer Regional Governor's Schools (SRgGS). Governor's Schools give gifted students academic, visual and performing arts opportunities beyond those normally available in the students' home schools. Students are able to focus on a specific area of intellectual or artistic strength and interest. If interested, please contact the Director of Student Services for more information.

## GRADING SCALE / GPA SCALE

Letter Grade	Number Range	Regular	Advanced	DE/AP/Honors
A+	97-100	4.0	4.5	5.0
A	93-96	3.9	4.4	4.9
A-	90-92	3.7	4.3	4.7
B+	87-89	3.3	3.9	4.3
B	83-86	3.0	3.5	4.0
B-	80-82	2.7	3.3	3.7
C+	77-79	2.3	2.9	3.3
C	73-76	2.0	2.5	3.0
C-	70-72	1.7	2.3	2.7
D+	68-69	1.3	1.9	2.3
D	63-67	1.0	1.5	2.0
D-	60-62	.7	.9	1.7
F	0-59	0	0	0

# ONLINE COURSE OFFERINGS & ADVANCED PLACEMENT

## Learning Online

An Advanced Placement course is a college level course taught in the high school context using a standardized course syllabus aligned with the College Board Advanced Placement test for that course. The Advanced Placement courses are for those students willing to accept the challenge of a rigorous academic curriculum. It is recommended that students should maintain a 3.1 GPA or higher if they wish to take an Advanced Placement course. The degree of difficulty, workload, and time required are equivalent to an introductory college course. Students and parents should work closely with counselors to ensure that the four-year plan includes the prerequisites and subsequent advanced courses.

Advanced Placement (AP) courses will enable students to earn college credits during high school, while saving time and money on future college tuition. Courses are taught in an online format, with the students working closely with the course instructor through email. Students will be required to take the Advanced Placement (AP) exam for the class, and the exam fees must be paid by the first day of class. Earning qualifying scores on such exams may result in college credits being granted in those subject areas. However, this decision is made by the individual college.

Students enrolling in Virtual Virginia who are participants in the Early College Scholars program will pay the Advanced Placement (AP) Exam fee prior to the beginning of class. If the student scores a 3 or a 4 on the exam then his/her exam fee will be reimbursed. Students who choose to drop their Advanced Placement (AP) course after the Advanced Placement (AP) Exams have been ordered will be responsible for paying the unused exam fee. World language courses are tuition-free for all Virginia public school students.

Students that are interested in Virtual Virginia should be self-motivated and possess a strong academic foundation. It would be very beneficial for students to have internet access at home. There is no limit to the number of courses that a student may take if the student meets the course prerequisites.

## VDOE Virtual Virginia Advanced Placement School 4x4 block Online Course Offerings

Information about the program is available at [www.virtualvirginia.org](http://www.virtualvirginia.org) or see your school counselor. *Availability of course offerings and enrollment is determined by Virtual Virginia.* Course descriptions are available at:  
<http://www.virtualvirginia.org/courses/catalog/>

Online Advanced Placement Courses	
Language Arts	History/Social Science
AP English Language and Composition-11 <sup>th</sup> Grade (1196)	AP Government and Politics: U.S. (2445)
AP English Literature and Composition-12 <sup>th</sup> Grade (1195)	AP Government and Politics: Comparative (2450)
	AP U.S. History (2319)
<b>Mathematics</b>	AP World History (2830)
AP Calculus AB (3177)	AP Human Geography (2212)
AP Calculus BC (3178)	AP Art History (9151)
AP Statistics (3192)	AP Psychology (2902)
AP Computer Science A (3185)	AP Microeconomics (2802)
AP Computer Science Principles (10019)	AP Macroeconomics (2803)
<b>World Languages</b>	AP Economics (2804)
AP French Language (5170)	AP European History (2399)
AP Spanish Language (5570)	
AP Spanish Literature (5580)	<b>Science</b>
AP Chinese Language & Culture (5860)	AP Environmental Science (4270)
AP Latin (5370)	AP Biology (4370)
	AP Physics 1 (4573)
<b>Fine Arts</b>	AP Physics 2 (4574)
AP Music Theory (9226)	

Online Non-Advanced Placement Courses	
Arabic I, II, III (5010/5011/5012)	Latin I, II, III & IV (5310/5320/5330)
Chemistry II (4420)	Physics (4510)
Chinese I, II, III & IV (5810/5820/5830/5840)	Survey of World Language & Culture (5700)
Earth Science II: Astronomy (4260)	World Mythology (1165)
Earth Science II: Oceanography (4250)	Intro to Game Design & Development (6640)
French I, II, III& IV (5110/5120/5130/5140)	Economics (2801)

**\*\*Additional non-advanced placement courses may be available upon approval.**

# DUAL ENROLLMENT COURSES

Dual Enrollment courses allow high school students to meet the requirement for high school graduation while simultaneously earning college credit. Patrick County students are eligible to take Dual Enrollment courses through Patrick & Henry Community College. Dual Enrollment provides students access to the same course content and curriculum that is offered on the community college campus, at the high school. Therefore, additional assignments will be required by P&HCC in order to obtain dual enrollment credit. **Any student wishing to be a part of the D-Squared program or wishing to enroll in a dual enrollment course during the 2024-2025 school year must have all necessary P&HCC registration paperwork completed by PCHS registration day.**

For a dual enrollment course to be taught, there must be a minimum of fifteen students enrolled. Enrollment in these classes is contingent upon a student achieving a passing score on a P&HCC placement test, acceptance in the course by the college, and availability of credentialed instructors. Fees are paid in accordance with school procedures.

Dual Enrollment Course Offerings	
Ethics (D-Squared)	Intro to Computer Applications and Concepts (D-Squared)
Biology H	Intro to Speech Communications (D-Squared)
Calculus H	Mathematical Analysis/Pre-Calculus H
Biology II: Anatomy & Physiology H	Spanish IV H
College Success Skills (D-Squared)	Spanish V H
English 11 H	VA. & U.S. History H
English 12 H	VA. & U.S. Government H
Nutrition and Development (D-Squared)	Sheet Metal I, Welding I & II
Mechatronics I & II	



## ACADEMIC HONORS

**Superintendent Scholar:** A student must have all A's every nine week grading period and no discipline referrals.

**Superintendent's Commendation List:** A student must have all 'A's' or at least a 4.0 semester grade point average.

**Principal's Honor Roll:** A student in grades 9-12 must earn a 3.20 or higher grade point average, and a student in eighth grade must have an average of 88 or higher.

**Teacher's Commendation List:** A student nominated by each teacher each semester for having shown the most improvement in academics and/or conduct.

**BETA Club:** A student must maintain a 3.75 or higher cumulative grade point average. Students in 8<sup>th</sup> grade may join the Junior Beta Club. Students in the 9<sup>th</sup> -12<sup>th</sup> grades may join the Senior Beta Club.

**Academic Letter:** A student in grades 9-12 who earns a 4.0 or higher grade point average for the year shall be awarded an Academic Letter the first year and a Bar for each subsequent year.

**Junior Class Marshall:** A student in grade 11 who earns a 4.0 or higher cumulative grade point average will serve as a Junior Marshal at graduation. This determination will be made at the conclusion of the 3<sup>rd</sup> nine weeks of the junior year.

**Presidential Academic Fitness:** A student must have a GPA of 3.5 or higher and exceptional achievement test scores.

## GRADUATION

Virginia students can earn either an Advanced Studies Diploma, Standard Diploma or a Standard Diploma with Credit Accommodations. Students must earn a combination of standard and verified units of credit to receive one of these diplomas.

### Graduation Ceremony

Students who complete graduation requirements during the regular school year are eligible to participate in the graduation ceremony.

#### Honor Graduates

Honor graduates achieving Magna Cum Laude status (GPA 4.0-4.2) and Summa Cum Laude status (GPA above 4.2) will be recognized during high school graduation. Patrick County High School does not rank students.

## DEFINITIONS

### Standard Unit of Credit

A standard unit of credit is awarded for a course in which the student successfully completes the objectives of the course.

### Verified Unit of Credit

A verified unit of credit is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course SOL test or a substitute assessment approved by the Board of Education. Students who are enrolled in a career and technical program area and pass a certification exam and/or licensure may earn a student-selected verified credit. A student-selected test for verified credit may come from any end-of-course SOL test that is not already satisfying a required verified credit. Local verified credits will be awarded in accordance with Patrick County School Board Policy, as described in the next section.

### Locally Awarded Verified Credits

Students can be given locally awarded verified credits in English, Math, Science, or History/Social Science if they meet all of the following requirements:

- Score within a 375-399 scale score range on any administration of the SOL test after taking the test at least twice
- Pass the associated high school course
- Demonstrate achievement in the academic content through an application process.

**Students who entered 9<sup>th</sup> grade in the 2018-2019 school year or thereafter** can be awarded only one verified credit through this process, but it can be applied towards either a Standard or an Advanced Studies Diploma. Students with disabilities who qualify for credit accommodations are not subject to limitations on the number of verified credits awarded through this process.

### Sequential Electives

Sequential electives are defined as two or more courses of study in a focused sequence of elective courses.

### Fine Arts or Career and Technical Education Course

The following courses will meet the fine arts graduation requirement: all art courses and all music courses. All Career and Technical courses will meet the graduation requirement. The course taken to satisfy the Fine Arts or Career and Technical Education course requirement may also serve as one of the two credits required to satisfy the sequential electives requirement.

### Career Concentration

A Career Concentration is a coherent sequence of courses completed by a student in a specific career area.

# VIRGINIA GRADUATION REQUIREMENTS

**Please note: The new graduation requirements discussed on this page only apply to students who entered the 9<sup>th</sup> grade for the first time in the 2018-2019 school year or later.**

Virginia's revised graduation requirements maintain high expectations for learning in English, math, science, and history/social science while reducing the number of Standards of Learning (SOL) tests students must pass to earn a high school diploma. The new standards also implement the "Profile of a Virginia Graduate," which describes the knowledge, skills, attributes, and experiences identified by employers, higher education, and the state Board of Education as critical for future success.

## Profile of a Virginia Graduate

A student meeting the Profile of a Virginia Graduate has achieved the commonwealth's high academic standards and graduates with workplace skills, a sense of community and civic responsibility and a career plan aligned with his or her interests and experiences.

In Virginia, the life ready individual will, during his or her K-12 experience:

- Achieve and apply appropriate academic and technical knowledge
- Attain and demonstrate productive workplace skills, qualities, and behaviors
- Align knowledge, skills, and personal interests with career opportunities
- Build connections and value for interactions with diverse communities

## The Five C's

In preparing students to meet the Profile of a Virginia Graduate, schools are required to ensure that students develop the following competencies known as the "Five C's":

- Critical thinking
- Creative thinking
- Communication
- Collaboration
- Citizenship

## Career Exploration and Planning

The career-planning component of the Profile of a Virginia Graduate provides an opportunity for students to learn more about the employment options and career paths they first explored in elementary and middle school.

While there is no specific career-related activity that a student must experience (such as an internship or job-shadowing assignment) to earn a diploma, school divisions must provide opportunities for students to learn about workplace expectations and career options in their own communities and elsewhere.

By reducing the number of SOL tests students must pass to earn a diploma, the new standards increase flexibility for schools to expand work-based and service-learning programs that promote college, career and civic readiness.

## Standard and Verified Credits

The number of standard credits for a Standard Diploma and Advanced Studies Diploma remain the same but the number of required verified credits — earned by passing a course in the content area and the associated end-of-course assessment — is reduced to five (one each in English reading, English writing, mathematics, science and history/social science) for both diplomas.

Please see pgs. 9-17 for detailed information regarding graduation requirements for all students.

For more information, please visit:  
<https://www.doe.virginia.gov>

# ADVANCED STUDIES DIPLOMA

For students entering the 9<sup>th</sup> grade for the first time in 2018-2019 and beyond

Discipline Area	Standard Units of Credit Required	Verified Units of Credit Required	SOL Tests for Verified Credit
English	4	2	English 10 Writing (or performance-based assessment) <u>and</u> English 11 Reading
Mathematics	4	1	Algebra I, Geometry or Algebra II
Laboratory Science	4	1	Earth Science, Biology or Chemistry
History and Social Science	4	1	World Geography, World History I, World History II or VA/US History
World Language	3		
Health and Physical Education	2		
Fine Arts or Career and Technical Education Course	1		
Economics and Personal Finance	1		
Electives	3		
Total	26	5	

**Students may earn an Advanced Studies Diploma by earning the required standard and verified units of credit as specified in the chart above and meeting the additional requirements listed in the charts below.**

Discipline Area	Specifications
<b>Mathematics</b>	Courses completed to satisfy this requirement shall include at least three different course selections from among: algebra I, geometry, algebra II, or other mathematics courses above the level of algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.
<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 and shall include interdisciplinary courses that incorporate Standards of Learning content from multiple academic areas. The board shall approve additional courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.
<b>History and Social Science</b>	Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement.
<b>World Language</b>	Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

<b>Discipline Area</b>	<b>Specifications</b>
<b>Fine Arts or Career and Technical Education</b>	Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical credit.
<b>Electives</b>	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

<b>Additional Requirements for Graduation</b>	
<b>Advanced Placement, Honors, or International Baccalaureate Course or Career and Technical Education Credential</b>	In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
<b>Virtual Course</b>	Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online.
<b>Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED).</b>	Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.
<b>Demonstration of the five Cs</b>	Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

# STANDARD DIPLOMA

For students entering the 9<sup>th</sup> grade for the first time in 2018-2019 and beyond

Discipline Area	Standard Units of Credit	Verified Units of Credit	SOL Tests for Verified Credit
English	4	2	English 10 Writing (or performance-based assessment) <u>and</u> English 11 Reading
Mathematics	3	1	Algebra I, Geometry or Algebra II
Science	3	1	Earth Science, Biology or Chemistry
History and Social Science	3	1	World Geography, World History I, World History II or VA/US History
Health and Physical Education	2		
World Language, Fine Art, or Career and Technical Education Course	2		
Economics or Personal Finance	1		
Electives	4		
Total	22	5	

Students may earn a Standard Diploma by earning the required standard and verified units of credit as specified in the chart above and meeting the additional requirements listed in the charts below.

Discipline Area	Specifications
<b>Mathematics</b>	Courses completed to satisfy this requirement shall include at least two different course selections from among: algebra I, geometry, algebra functions, and data analysis, algebra II, or other mathematics courses approved by the board to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.
<b>Laboratory Science</b>	Courses completed to satisfy this requirement shall include course selection from at least two different science disciplines: earth sciences, biology, chemistry, or physics, or completion of the sequence of science courses required for the International Baccalaureate Diploma and shall include interdisciplinary courses that incorporate Standards of Learning content from multiple academic areas. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.
<b>History and Social Science</b>	Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement.

<b>Laboratory Science, and History and Social Science</b>	Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for either a laboratory science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.
<b>Discipline Area</b>	<b>Specifications</b>
<b>World Language, Fine Arts or Career and Technical Education</b>	Per the Standards of Quality, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.
<b>Electives</b>	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

<b>Additional Requirements for Graduation</b>	
<b>Advanced Placement, Honors, or International Baccalaureate Course or Career and Technical Education Credential</b>	In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
<b>Virtual Course</b>	Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online.
<b>Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)</b>	Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.
<b>Demonstration of the five Cs</b>	Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

## **ADDITIONAL DIPLOMAS & CERTIFICATES**

### **Standard Diploma with Credit Accommodations**

For students entering the 9<sup>th</sup> grade for the first time in 2013 or later

The Standard Diploma with Accommodations program is intended for certain students at the secondary level who have a disability and are unlikely to meet the verified credit requirements for a Standard Diploma. Eligibility and participation in this program shall be determined by the student's Individual Education Program (IEP) team or the 504 committee and the student, where appropriate, at any point after the student's eighth grade year. This diploma type holds the same course requirements as a Standard Diploma but with accommodations given toward the verified credit requirements in English and Math. Refer to the Standard Diploma requirements on pages 13 – 16. The number of verified credits required remain the same in each subject area but can be earned by passing the course and attempting the associated SOL a minimum of two times with at least one of those attempts earning a score of 375 or higher. Example: One Math verified credit awarded in Algebra I for a passed course and two attempts at the SOL with scores of 365 on the first attempt and 385 on the second attempt.

### **Applied Studies Diploma**

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.

### **Certificate of Program Completion**

Students who have not met the requirements to earn a Board of Education-approved diploma may receive a Certificate of Program Completion. Students must have completed all courses for their 4-year high school cohort as prescribed by the school according to the individual student's plan of study.

# **HIGH SCHOOL DIPLOMA SEAL REQUIREMENTS**

## **Board of Education Advanced Mathematics and Technology Seal**

To earn a Board of Education Advanced Mathematics and Technology Diploma Seal, students must:

1. Fulfill the requirements for either a standard or advanced studies diploma.
2. Satisfy all mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better.
3. Meet one of the following conditions:
  - Pass an exam that confers certification from a recognized industry, trade, or professional association.  
Example: Microsoft Office Specialist
  - Acquire a professional license in a career and technical education field from the Commonwealth of Virginia.
  - Pass an exam approved by the Board of Education that confers college-level credit in a technology or computer science area.

## **Board of Education Seal**

The Board of Education Seal shall be awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A."

## **Board of Education's Excellence in Civics Education Seal**

The Board of Education's Seal for Excellence in Civics Education will be awarded to students who earn either a Standard or Advanced Studies Diploma and:

1. complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; and,
2. have good attendance and no disciplinary infractions as determined by local school board policies and,
3. complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause 3 of this subdivision include:
  - 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 JROTC;
  - Participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or
  - 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.

## **Board of Education Career and Technical Education Seal**

To earn a Career and Technical Education Diploma Seal, students must:

1. Earn a standard or advanced studies diploma.
2. Complete prescribed sequence of courses in a CTE concentration or specialization and maintain a "B" or better average in those courses.
3. Or meet one of the following conditions:
  - Pass an exam or occupational competency credential that confers certification from a recognized industry, trade, or professional association. Example: W!SE Financial Literacy Exam
  - Acquire a professional license in a career and technical field from the Commonwealth of Virginia.  
Example: Licensed Cosmetologist



# HIGH SCHOOL DIPLOMA SEAL REQUIREMENTS

## Board of Education Governor's Seal

The Governor's Seal shall be awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better and successfully complete college level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP) or dual enrollment courses.

## The Board of Education's Seal of Bi-literacy

The Board of Education's Seal of Bi-literacy is awarded to students who earn a Board of Education-approved diploma and

1. pass all required End-of-Course Assessments in English reading and writing at the proficient or high level
2. demonstrate proficiency at the intermediate-mid level or higher in one or more languages other than English, as demonstrated through an assessment from a list approved by the Superintendent of Public Instruction. American Sign Language qualifies as a language other than English.

## The Board of Education's Seal for Excellence in Science and the Environment

The Board of Education's Seal for Excellence in Science and the Environment shall be awarded to students who enter the ninth grade for the first time in the 2018-2019 year and thereafter, and meet each of the following criteria:

1. earn either a Standard or Advanced Studies Diploma
2. complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher;
3. complete laboratory or field-science research and present that research in a formal, juried setting; and
4. complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

## The Board of Education's Diploma Seal for Science, Technology, Engineering, and Mathematics (STEM)

The Board of Education's STEM Seal shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and satisfy all Math and Science requirements for the Advanced Studies Diploma with a "B" average or better in all course work, and:

1. successfully complete a 50 hour or more work-based learning opportunity in a STEM area, and
2. satisfy all requirements for a Career and Technical Education concentration. A *concentration* is a coherent sequence of two or more state-approved courses as identified in the course listing within the CTE Administrative Planning Guide, and
3. pass one of the following:
  - a Board of Education CTE STEM-H credential examination, or
  - an examination approved by the Board that confers a college-level credit in a STEM field.

# EARLY COLLEGE / COMMONWEALTH SCHOLARS PROGRAMS

## Commonwealth Scholars Program

Commonwealth Scholars is a national program that uses business leaders to motivate students, beginning in eighth grade, to complete a rigorous course of study in high school--one that will give them a boost in college and careers. The Commonwealth Scholars course requirements fall between existing requirements for the Standard Diploma and the Advanced Studies Diploma. Students who complete the curriculum will be eligible to receive a diploma seal from Patrick County Public Schools recognizing their achievement.

## Core Course of Study for the Commonwealth Scholars Program

Requirements for a Virginia high school diploma, including verified credits, must be met for recognition as a Commonwealth Scholar. Commonwealth Scholars must successfully complete these specific core courses:

Subject Area	Required Units of Credit	Required Course(s)
English	4	English 9, 10, 11 & 12
Mathematics	3	Algebra 1, Geometry, and Algebra 2
Laboratory Science	3	Biology, Chemistry, and Physics
History & Social Science	3.5	Choose from: US and VA History, World History, US and VA Government, World Geography, Economics or Financial Literacy
Fine Arts or Career & Technical Education Course	1	Student Selected
Foreign Language	2	Student Selected (in the same language)

## Early College Scholars Program

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

- Sign and return the Early College Scholars agreement form;
- Have a "B" average or better;
- Be pursuing an Advanced Studies Diploma;
- Take and complete college-level course work (i.e., Advanced Placement, or dual enrollment) that will earn at least 15 transferable college credits; and
- Apply and be accepted to a college or university

# NCAA ELIGIBILITY CENTER QUICK REFERENCE GUIDE



Eligibility Center

## 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.

<p><b>DIVISION I</b> <b>Core-Course Requirement (16)</b></p> <ul style="list-style-type: none"> <li>4 years of English</li> <li>3 years of math (Algebra I or higher)</li> <li>2 years of natural/physical science (1 year of lab if offered)</li> <li>1 year of additional English, math or natural/physical science</li> <li>2 years of social science</li> <li>4 years of additional courses (any area above, foreign language or comparative religion/philosophy)</li> </ul>	<p><b>DIVISION I – 2016</b> <b>Qualifier Requirements</b> <i>*Athletics aid, practice, and competition</i></p> <ul style="list-style-type: none"> <li>• 16 core courses           <ul style="list-style-type: none"> <li>◦ 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.               <ul style="list-style-type: none"> <li>▪ "Locked in" for core-course GPA calculation.</li> </ul> </li> </ul> </li> <li>• 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).</li> <li>• Graduate from high school.</li> </ul>	<p><b>DIVISION I – 2016</b> <b>Academic Redshirt Requirements</b> <i>*Athletics aid and practice (no competition)</i></p> <ul style="list-style-type: none"> <li>• 16 core courses           <ul style="list-style-type: none"> <li>◦ No grades/credits "locked in" (repeated courses after the seventh semester begins may be used for initial eligibility).</li> </ul> </li> <li>• 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).</li> <li>• Graduate from high school.</li> </ul>
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Sliding Scale A		
Use for Division I prior to August 1, 2016		
NCAA DIVISION I SLIDING SCALE		
Core GPA	SAT Verbal and Math ONLY	ACT Sum
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

Sliding Scale B		
Use for Division I beginning August 1, 2016		
NCAA DIVISION I SLIDING SCALE		
Core GPA	SAT Verbal and Math ONLY	ACT Sum
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



Eligibility Center

## 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		
<i>Use for Division II beginning August 1, 2018</i>		
Core GPA	SAT Verbal and Math ONLY	ACT Sum
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		
<i>Use for Division II beginning August 1, 2018</i>		
Core GPA	SAT Verbal and Math ONLY	ACT Sum
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).



# CAREER PLANNING

## The 16 Career Clusters

Exciting and diverse careers are open to qualified applicants. The possibilities are limitless. Your school counselor and career counselor will help you to learn more about these opportunities and about your own interests using career inventories and computerized programs such as MajorClarity. Most careers fall into one of the following 16 Career Clusters:

### Agriculture, Food & Natural Resources

The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources include food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

### Architecture & Construction

Careers in designing, planning, managing, building and maintaining the built environment.

### Arts, A/V Technology & Communications

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

### Business Management & Administration

Business Management and Administration careers encompass planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

### Education & Training

Planning, managing and providing education and training services, and related learning support services.

### Finance

Planning, services for financial and investment planning, banking, insurance, and business financial management.

### Government & Public Administration

Executing governmental functions to include governance; national security; foreign service; planning; revenue and taxation; regulation; and management and administration at the local, state, and federal levels

### Health Science

Planning, managing, and providing therapeutic services, diagnostic services, health information, support services, and biotechnology research and development.

### Hospitality & Tourism

Hospitality & Tourism encompasses the management, marketing, and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services.

### Human Services

Preparing individuals for employment in career pathways that relate to families and human needs.

### Information Technology

Building linkages in the IT occupation framework: for entry level, technical and professional careers related to the design, development, support and management of hardware, software, multi-media, and systems integration services.

### Public Safety, Corrections and Security

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

### Manufacturing

Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

### Marketing, Sales and Services

Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering including laboratory and testing services, and research and development services.)

### Science, Technology, Engineering & Mathematics

Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

### Transportation, Distribution & Logistics

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

# ACADEMIC AND CAREER PLANS

Each student entering the eighth grade at Patrick County High School will have an Academic and Career Plan that has been created for them at the elementary school level. The Academic and Career Plan is designed to be a working document that maximizes student achievement by having the student accomplish goals in high school that lead to postsecondary and career readiness. The plan will be student-driven and maintained by school professionals working cooperatively to assist the student in reaching his or her goals in the most logical academic and career path. The student, parent or guardian, and school professional will maintain a plan agreed upon by all parties to ensure everyone is focused on working toward the same goals and analyze and adjust the Plan in response to new information to meet the needs of the student.

*Sample Plan:*



## Academic & Career Plan

Diploma Type:      Advanced Studies      Standard      Standard with Accommodations \_ Other \_

Grade	English/ Language Arts	Mathematics	Science	Social Studies/ Science	Other Required Courses Recommended Electives	Electives
8	English 8	Math 8	Physical Science	World History I	Health/PE 8	Spanish I
9	English 9	Algebra 1	Environmental Science	World History II	Health/PE 9	Spanish II
10	English 10	Geometry	Biology		Health/PE 10	Spanish III
11	English 11	Algebra II	Chemistry	US/VA History	Economics & Personal Finance	
12	English 12	Trigonometry	Physics	US Government		

Completer Information	College Interests	Degree, College Certificate, Apprenticeship/Technical Program or Military	Employment (Career Goal)

Test Data	Industry Certification(s)	Organization(s) _DECA _FBLA _FCCLA _FFA _HOSA _Skills USA _TSA	Work-Based Learning _Career Research _Co-op Education _Internship _Mentorship _Job Shadowing _Apprenticeship _Service Learning _Clinicals _Civic Internship	Employment (Career Goal)

Grade:      Date:  
Student:

Grade:      Date:  
Student:

Grade:      Date:  
Student:

School Official:  
Parent/Guardian:

School Official:  
Parent/Guardian:

School Official:  
Parent/Guardian:



# COURSE DESCRIPTIONS

## Selecting Courses

The Patrick County School Board supports the use of best practices that research and experience have shown to be effective for high school aged students. Such practices include, but are not limited to, teacher-directed instruction, group work, cooperative learning, peer tutoring, performance based assessments and student-directed learning. The high school offers a minimum of six and one-half hours of instruction each day, exclusive of the lunch period. Classes are arranged in a 4X4 block format schedule. All students will maintain a full day schedule of classes.

The following pages describe high school course offerings. Course selection patterns may affect course offerings. Students registered for a class with an enrollment too small or too large are notified by the school counselor and given the opportunity to make another course selection.

## ENGLISH

*English 8 Foundations (Year-long) (1120YF) (Prerequisite: 7<sup>th</sup> grade Language Arts teacher recommendation, Limited Enrollment, placement test)*

This course will emphasize numerous writing forms with elaboration on sentence variety, usage, and mechanics. Literature study includes the short story, nonfiction, poetry, drama, and the novel. Other areas include the mass media, library skills, and vocabulary. This course is intended for those who need a more comprehensive study of the topics with many opportunities to practice and master foundational skills in reading and writing.

*English 8 (Year-long) (1120Y) (Prerequisite: 7<sup>th</sup> grade Language Arts teacher recommendation, placement test)*

This course will emphasize numerous writing forms with elaboration on sentence variety, usage, and mechanics. Literature study includes the short story, nonfiction, poetry, drama, and the novel. Other areas include the mass media, library skills, and vocabulary. This course is intended for those who need a more comprehensive study of the topics over the school year.

*English 8 (Advanced) (1120A)  
(Prerequisite: 7<sup>th</sup> Grade Language Arts Teacher Recommendation, placement test)*

The student will develop an appreciation for literature through a study of literary elements including the reading of novels. Narrative, expository, and persuasive writing will be a part of the course. Interviewing techniques and oral projects/speeches may be included.

*English 9 Business Writing (1130B) – 1 credit (Prerequisite: 8<sup>th</sup> Grade Teacher Recommendation, Limited Enrollment)*

Students will develop interpersonal communication skills as well as those skills required for more formal public speaking opportunities. They will present and critique dramatic readings or literary selections and will continue to develop proficiency in making planned oral presentations. Students will apply knowledge of literary terms and forms to their reading and writing. They will be introduced to literary works from a variety of cultures and eras. Students will continue to develop

their reading comprehension skills through utilizing strategies to identify formats, text structures, and main ideas. Students will write narrative, persuasive, expository and informational forms. They will develop as writers by participating in a process for writing, including prewriting, organizing, composing, revising, editing, and publishing. Students will edit writings for correct grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing. Students will develop skills in using print, electronic databases, and online resources to access information. Students will also use a standard style method to credit sources of ideas used in research writing. Research using the MLA Style Guidelines will be expected. These skills will be stressed this semester in order to prepare students for the business writing test administered in tenth grade and for which passing is required for graduation.

*English 9 (1130) – 1 credit (Prerequisite: None)*

Students will develop interpersonal communication skills as well as those skills required for more formal public speaking opportunities. They will present and critique dramatic readings or literary selections and will continue to develop proficiency in making planned oral presentations. Students will apply knowledge of literary terms and forms to their reading and writing. They will be introduced to literary works from a variety of cultures and eras. Students will continue to develop their reading comprehension skills through utilizing strategies to identify formats, text structures, and main ideas. Student will write narrative, persuasive, expository and informational forms. They will develop as writers by participating in a process for writing, including prewriting, organizing, composing, revising, editing, and publishing. Students will edit writings for correct grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing. Students will develop skills in using print, electronic databases, and on-line resources to access information. Students will also use a standard style method to credit sources of ideas used in research writing. Research using the MLA Style Guidelines will be expected.

*English 9 (Advanced) (1130A) – 1 credit  
(Prerequisite: English 8 Teacher Recommendation)*

This course emphasizes reading, presenting, and analyzing a variety of literature from different cultures, and time periods. In addition, the identification and close study of literary forms and varying elements of literature are emphasized. Writing consists of literary analysis, narrative, and expository essays. The student will study both modern and Shakespearean dramas, non-fiction, poetry, short stories and various novels. Diligent research using the MLA Style Guidelines will be expected. The final product will contain the research of topic of the student's choosing and will adhere to specific rules concerning the crediting of paraphrased and/or quoted materials, as well as, comprehension of the concept and consequences of plagiarism.

*English 10 Business Writing (1140B) – 1 credit*  
(Prerequisite: Pass English 9 and Teacher Recommendation)

Because a state writing test is administered in the tenth grade, writing is a major focal point. One of two tests must be passed as a graduation requirement. Students will develop their expository and persuasive writing skills by analyzing and critiquing peer and professional writing. They will learn effective techniques of organization and development by analyzing, revising, and evaluating various written forms and ideas. They will demonstrate understanding by applying the writing process in developing written products. They will edit writing for correct use of language, sentence formation, punctuation, capitalization, and spelling as part of the writing process. Students will develop skills in accessing, evaluation, organizing, and presenting information in the research process. They will also credit sources for quoted and paraphrased information. Research using the MLA Style Guidelines will be expected. Students will present writing in a format appropriate for audience and purpose. Students will become skilled communicators in small group learning activities. They will assume and evaluate individual roles in presenting oral reports. They will also examine and critique the overall effectiveness of the group process. Students will read, comprehend, critique, and analyze a variety of literary works. They will interpret a variety of informational materials, such as labels, manuals, warranties, directions, applications, technical descriptions, contracts, and forms to complete specific tasks.

*English 10 (1140) – 1 credit*  
(Prerequisite: English 9)

Since the end of course Writing SOL is administered in the 10th grade, writing is a major focal point. Students will become skilled communicators in small group learning activities. They will assume and evaluate individual roles in presenting oral reports. They will also examine and critique the overall effectiveness of the group process. Students will read, comprehend, critique, and analyze a variety of literary works. They will interpret a variety of informational materials, such as labels, manuals, warranties, directions, applications, technical descriptions, contracts, and forms to complete specific tasks. Students will develop their expository writing skills by analyzing and critiquing peer and professional writing. They will learn effective techniques of organization and development by analyzing, revising, and evaluating various written forms and ideas. They will demonstrate understanding by applying the writing process in developing written products. They will edit writing for correct use of language, sentence formation, punctuation, capitalization, and spelling as part of the writing process. Students will develop skills in accessing, evaluating, organizing, and presenting information in the research process. They will also credit sources for quoted and paraphrased information. Research using the MLA Style Guidelines will be expected. Students will present writing in a format appropriate for audience and purpose.

*English 10 (Advanced) (1140A) – 1 credit (Prerequisite: English 9 Teacher Recommendation)*

Since the end of course Writing SOL is administered in the 10th grade, writing is a major focal point. The semester will be divided roughly in half between a focus on writing and an intensive study of literature. Writing consists of literary analysis, narrative, and expository essays, as well as a thorough study of grammar. The student will study Shakespearean drama, nonfiction, poetry, short stories, and various novels. Diligent research using the MLA Style Guidelines will be expected. The research paper will culminate with the student's research on a particular position in regards to a controversial issue. It will adhere to specific rules concerning the crediting of paraphrased and/or quoted materials as well as, the careful study and proper documentation of reliable electronic sources.

*English 11 (1150) – 1 credit*  
(Prerequisite: English 10)

Since the end of the course Reading SOL is administered in the 11th grade, the focus of student learning will be in reading, understanding, and using a variety of informational texts. Students will develop specific reading skills in order to generalize ideas, make predictions, and follow directions. Students will identify and analyze the steps in their own reading process in order to broaden their critical understanding. In addition, students will increase their independence as learners of vocabulary by using prefixes, suffixes, roots, and derivations to determine meaning and relationships among related words. They will evaluate the use of figurative language in text. Students will use context and connotations to help determine the meaning of synonymous words and appreciate an author's choices of words and images. Students will understand literature as it relates to the cultural and historical period in which it was written. This study will include poetry and dramatic selections. Students will write clear and accurate personal, professional, and informational correspondence. Students will compose a documented research product that is based on valid resources and procedures. Students may be asked to deliver effective informative and persuasive presentations, using appropriate oral-communication skills. Students will continue to develop medial literacy by examining how media messages influence people's beliefs and behaviors.

*English 11 (Advanced) (1150A) – 1 credit*  
(Prerequisite: English 10 Teacher Recommendation)

Since the end-of-course Reading SOL is administered in the 11th grade, reading comprehension is a major focal point. This is a study of American Literature, both classical and contemporary, and the identification of major themes, characterizations, periods, and writing styles of authors that are reflective of the history and culture. Students will develop expository and essay writing, comparison-contrast, literary analysis, and persuasive compositions by locating, evaluating, synthesizing, and citing applicable information with careful attention to organization and accuracy.

*English 11 (Honors) (1150H) (D-Squared) – 1 credit*  
(Prerequisite: English 10 Teacher Recommendation, passing score on a placement test administered by Patrick & Henry Community College. Students will receive six college credits for English 111 and English 246.)

Since the end-of-course Reading SOL is administered in the 11th grade, reading comprehension is a major focal point. Honors English is designed for students who are serious about their intellectual growth, who think maturely and who are curious about the literature they read. This course will concentrate on a survey of American Literature emphasizing writers' styles, contents and purposes according to the genre in which the authors work. The course will stress planning, writing and revising a variety of modes of discourse.

*English 12 (1160) – 1 credit*  
(Prerequisite: English 11)

At the 12th grade level, students will analyze British literature and informational and technical texts to better develop their own reading process skills. Students will write various types of papers including a research paper, which will require the use of the MLA format and a presentation. Students will also complete a number of activities to help prepare them for the world beyond high school.

*English 12 (Advanced) (1160A) – 1 credit*  
(Prerequisite: English 11 Teacher Recommendation)

The study of British literature is the focus of the course. Composition assignments could include the following: character sketch/personality profile; documented research report; satire for persuasion, entertainment, or both; application essay suitable for college; subject analysis; proposal presenting a solution to a problem or need. Composition conventions would include planning for audience and purpose; logical sequencing; clear and accurate elaboration of ideas; revision for depth of information and presentation; and editing for usage, spelling punctuation, and capitalization.

*English 12 (Honors) (1160H) (D-Squared) – 1 credit*  
(Prerequisite: English 11-H, passing score on a placement test administered by Patrick & Henry Community College. Students will receive six college credits for English 112 and English 245.)

This curriculum will cover the advanced English curriculum plus additional work in critical analysis of literature and writing. Students will study major works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. At times controversial materials may be discussed based on college level curriculum.

*Creative Writing (1171) – 1 credit (Prerequisite: C in previous year of English; Offered Grades 9- 12)*

This course will offer students the opportunity to learn to write short stories, poetry, and one-act plays, as well as discover various literary genres. Class time will be spent on ideas, structure, style, writing, sharing, and criticism. All writing will ultimately lead to creation of semester long writing projects, as students will create personal portfolios.

*Introduction to Publication Production/Yearbook I & II (111041, 111042) – 1 credit (Prerequisite: Offered in grades 9-12)*

These courses are introductory level courses to all concepts covered in Yearbooks III-VIII. Yearbook I and II cover introductory principles of media ethics, graphic design, page design and layout, photo cropping, reporting, copyrighting, copy-editing and advertising. It provides students with hands-on experience in planning and preparation of the school yearbook. Students are required to sell ads and/or contact businesses for the purpose of fund-raising. This is a publications course.

*Publication Production/Yearbook III & IV (111043, 111044) – 1 credit (Prerequisite: Offered in grades 10-12)*

Yearbook III and IV cover the principles of media ethics, graphic design, page design and layout, photo cropping, reporting, copyrighting, copy-editing and advertising. It provides students with hands-on experience in planning and preparation of the school yearbook. Students are required to sell ads and/or contact businesses for the purpose of fund-raising. This is a publications course.

*Publication Production/Yearbook V & VI (111045, 111046) – 1 credit*  
(Prerequisite: Offered in grades 11-12)

Yearbook V and VI continues the study of journalistic principles and practices and adds a “hands-on” approach to photography. Students will take part in the concept development, headline writing, picture taking, article writing and editing of the school yearbook. This is a publications course.

*Publication Production/Yearbook VII & VIII (111047, 111048) – 1 credit (Prerequisite: Offered in grade 12)*

Yearbook VII and VIII continue the application of photojournalism principles and practices with the use of desktop publishing. Yearbook VII and VIII students will take on added responsibilities and assist in each phase of the production of the school yearbook. Editing pages and teaching fundamentals of yearbook design to new staff members will also be required. This is a publications course.

# MATHEMATICS

## *Math 8 (Year) (3112Y)*

*(Prerequisite: 7th Grade Math Teacher Recommendation)*

The eighth-grade standards contain both content that reviews or extends concepts and skills learned in previous grades and new content that prepares students for more abstract concepts in Algebra and Geometry. Students will gain proficiency in computation with rational numbers (positive and negative fractions, numbers, and integers) and use proportions to solve a variety of problems. New concepts include solving two-step equations and inequalities, graphing linear equations, visualizing three-dimensional shapes represented in two-dimensional drawings, applying transformations to geometric shapes in the coordinate plane, and using manipulatives to organize and interpret data. Students will verify and apply the Pythagorean Theorem and represent relations and functions using tables, graphs, and rules.

## *Algebra Readiness & Algebra I (3131, 3132)—2 credits*

*(Prerequisite: Math Teacher Recommendation)*

This class will provide an extension of skills and understanding of concepts in the real number system. Students will solve first-degree equations and inequalities and perform operations with polynomials. Functions, relations, and their graphs are introduced. Manipulatives, graphing calculators, and application software are used for solving problems and verifying solutions. In Algebra I, students continue the study of algebraic concepts including operations with real numbers and polynomials. They solve first-degree equations and inequalities, quadratic equations, and systems of equations. Concepts associated with functions and relations, including their graphs, are emphasized. A study of statistics is also included in this course. Manipulatives, graphing calculators, and application software are used for solving problems and verifying solutions.

## *Algebra I (3130) (Semester) – 1 credit*

*(Prerequisite: Math Teacher Recommendation)*

In Algebra I, students continue the study of algebraic concepts including operations with real numbers and polynomials. They solve first-degree equations and inequalities, quadratic equations, and systems of equations. Concepts associated with functions and relations, including their graphs, are emphasized. A study of statistics is also included in this course. Manipulatives, graphing calculators, and application software are used for solving problems and verifying solutions.

## *Geometry Readiness & Geometry (3144, 3145) —2 credits*

*(Prerequisite: Algebra I)*

This class will provide an extension of skills and understanding of concepts needed for the deductive method of proof. Axioms are used to justify theorems and to determine whether conclusions are valid. A gradual development of formal proof is encouraged. A variety of applications and some general problem-solving techniques are used to implement these concepts. Students use graphing utilities and computer software as appropriate. The Geometry course will include the deductive axiomatic method of proof to justify theorems and to tell whether conclusions are valid. It also includes emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Students use graphing utilities and computer software as appropriate.

## *Geometry (Semester) (3143) – 1 credit*

*(Prerequisite: Recommended “C” average in Algebra I and/ or teacher recommendation.)*

This course includes the deductive axiomatic method of proof to justify theorems and to tell whether conclusions are valid. It also includes emphasis on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Students use graphing utilities and computer software as appropriate.

## *Algebra Functions and Data Analysis (3134) —1 credit*

*(Prerequisite: Algebra I and Geometry)*

This course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, system of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations.

## *Algebra II (3135) – 1 credit*

*(Prerequisite: Algebra I and Geometry; Recommendation of a “C” in Algebra I; Offered in Grades 10-12)*

A thorough treatment of advanced algebraic concepts is provided through the study of functions, polynomials, rational expressions, complex numbers, and sequences and series. Oral and written communication concerning the language of algebra, the logic of procedures, and interpretation of results also permeate the course. A transformational approach to graphing functions is used. 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.

## *Trigonometry (3150A) – 1 credit*

*(Prerequisite: Algebra II; Recommendation of a “C” In Algebra II)*

Trigonometric and circular functions are introduced in this course. Evaluation of trigonometric functions, use of basic formulas, and laws of cosines and sines are presented. Emphasis is placed on the applications of trigonometry, solutions of trigonometric equations, applications of triangles and vectors, and polar graphing. Advanced topics in algebra, analytical geometry, polynomial functions, and sequences are also included.

## *Math Analysis/Pre-Calculus (Honors) (3162H) (D-Squared) – 1 credit*

*(Prerequisites: Trigonometry; Passing score on a placement test administered by Patrick & Henry Community College. Students will earn 5 college credits for MTH 167).*

Students enrolled in Mathematical Analysis are assumed to have mastered Algebra II concepts and have some exposure to trigonometry. Mathematical Analysis 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.

*Calculus (Honors) (02121H) (D-Squared) – 1 credit*  
(Prerequisites: Math Analysis; Passing score on a placement test administered by Patrick & Henry Community College. Students will earn 4 college credits for MTH 263).

This course extends the theory of elementary functions. Topics include: derivatives of algebraic functions, and transcendental functions; derivatives of the sum, difference, product, quotient and power of algebraic/ transcendental functions; the definite integral and improper integrals and concepts related to integration; logarithmic differentiation; techniques of integration; differential equations, and applications of the derivative and the definite integral. Both applications and formal proof are emphasized.

## SCIENCE

**For courses in Biology I, Biology H, and Biology II—Human Anatomy and Physiology: With regard to State regulations and respect to individual differences, alternatives to dissection can be made available to individuals with special circumstances. Any objection to dissection should be substantiated by a written request and signed by the student's parent, administrator, and possibly physician. Documentation will then be placed in the student's records.**

*Physical Science (4125) (Prerequisite: None)*

The physical science course stresses an in-depth understanding of the nature and structure of matter and the characteristics of energy. The standards place considerable emphasis on the scientific inquiry of physical science principles. Major areas covered by the standards include the organization and use of the periodic table, physical and chemical changes, nuclear reactions, temperature and heat, sound, light, electricity and magnetism, work, force, and motion, and lab equipment.

*Environmental Science (03003) – 1 credit*  
(Prerequisite: None)

This course will provide students the opportunity to learn environmental concepts in depth. The goal of this course is to provide students with the skills and content necessary for them to look at current and future environmental issues, both natural and man-made, through a critical lens and to provide a platform to make informed decisions. This course will focus on scientific inquiry, the physical world, the living environment, resource conservation, humans' impact on the environment, and legal and civic responsibility.

*Earth Science Advanced (4210A) – 1 credit*  
(Prerequisite: Completion of both Algebra I and Physical Science with a recommended minimum "C" grade average)

This rigorous Earth Science course connects the study of the Earth's composition, structure, processes, and history; its atmosphere, fresh water, and oceans; and its environment in space. The standards emphasize historical contributions in the development of scientific thought about the Earth and space. The standards stress the interpretation of maps, charts, tables, and profiles; the use of technology to collect, analyze, and report data; and science skills to perform systematic investigation. Problem solving and decision-making are an integral part of the standards, especially as they relate to the costs and benefits of utilizing the Earth's resources. 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.

*Biology (4310) – 1 credit (Prerequisite: Earth Science Advanced or Environmental Science)*

The standards of Biology are designed to provide students with a detailed understanding of living systems. Emphasis continues to be placed on the skills necessary to examine alternative scientific explanations, actively conduct controlled experiments, analyze and communicate information, and acquire and use scientific literature. The history of biological thought and the evidence that support it are explored and provide the foundation for investigating biochemical life processes, cellular organization, mechanisms of inheritance, dynamic relationships among organisms, and the changes in organisms through time. The importance of scientific research that validates or challenges ideas is emphasized at this level.

*Advanced Biology (4310A)*  
(Prerequisite: Completion of Earth Science Advanced or Environmental Science with a minimum of "C" average)

This course is designed to give students a more challenging and in-depth Biology experience while also following the Virginia Standards of Learning in Biology. Students are expected to work independently on a variety of assignments and accept greater responsibility for their learning. Students are expected to design and carry out several independent investigations of biological questions; read and report on recent research in biology, and demonstrate a more in-depth conceptual understanding of all Biology objectives.

*Earth Science (4210) – 1 credit*  
(Prerequisite: Offered in Grades 11-12)

The Earth Science standards connect the study of the Earth's composition, structure, processes, and history; its atmosphere, fresh water, and oceans; and its environment in space. The standards emphasize historical contributions in the development of scientific thought about the Earth and space. The standards stress the interpretation of maps, charts, tables, and profiles; the use of technology to collect, analyze, and report data; and science skills to perform systematic investigation. Problem solving and decision-making are an integral part of the standards, especially as they relate to the costs and benefits of utilizing the Earth's resources. 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.

*Biology (Honors) (4320H) (D-Squared) – 1 credit*  
(Prerequisites: Biology I; Chemistry; Passing score on a placement test administered by Patrick & Henry Community College. Students will receive 8 college credits for BIO 101 and 102.)

This course is an intensive study of modern biology, taught at the college level. Course content provides in-depth coverage of molecular biology, genetics, cellular biology, embryology, plant and animal physiology, and human anatomy and physiology. Experience will be provided in special techniques and laboratory materials and equipment used in modern biological research.

*Biology II: Human Anatomy and Physiology (4330) - 1 credit*  
(Prerequisites: Recommended "C" in Biology)

Biology II is a course designed to present the student with essential information for understanding structure and function of the human body as well as promoting an interest in health careers. Dissection of mammals is required as well as the use of visual aids.

*Biology II: Ecology (4340) - 1 credit (Prerequisites: Biology)*

This course introduces students to global issues, including loss of habitats, global warming and its projected effects, world hunger, and the extinction of species. Students will explore factors influencing human population growth and changing biomes, and potential threats to ecosystems.

*Anatomy & Physiology (Honors) (4330H) –2 Credits/Yearlong*  
(Prerequisites: Biology I; Passing score on a placement test administered by Patrick & Henry Community College. Students must take as dual enrollment and must meet the DE requirements. Students will receive 8 college credits for BIO 141 and 142)

This course integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. This course is designed for general studies/health science students. The purpose of this course is to introduce students to the study of the anatomy and physiology of the human body. This course will provide students a solid foundation of the various different structural and functional components of the human body. This will be satisfied by studying anatomical parts, as well as the physiological processes of the human body through the study of body systems. Each system is presented in sufficient depth to provide a comprehensive understanding for students. The systems that will be of main focus in this course include the integumentary, skeletal, muscular, and nervous. Other topics discussed in this course include anatomical terminology and tissues.

*Chemistry (4410) – 1 credit*  
(Prerequisite: Biology; Algebra II)

The Chemistry standards are designed to provide students with a detailed understanding of the interaction of matter and energy. This interaction is investigated through the use of laboratory techniques, manipulation of chemical quantities, and problem-solving applications. Scientific methodology will be employed in experimental and analytical investigations, and concepts will be illustrated with practical applications.

*Chemistry (Advanced) (4410A) – 1 credit*  
(Prerequisite: Biology; Algebra II)

In Advanced Chemistry, concepts introduced are extended and higher levels of subject matter and scientific investigations are explored. Laboratory techniques are refined and expanded with emphasis placed on the study of descriptive chemistry and chemical principles through the use of chemical models. Importance is placed on the student's development of a strong problem-solving orientation to chemistry.

*Advanced Physics (4510A) – 1 credit (Prerequisite: Biology; Algebra II)*

The Physics standards emphasize a more complex understanding of experimentation, the analysis of data, and the use of reasoning and logic to evaluate evidence. The use of mathematics, including algebra, inferential statistics, and trigonometry, is important to the understanding of the conceptual physical systems. Students build on physical science principles by exploring, in depth, the nature of characteristics of energy and its dynamic interaction with matter. Key areas covered by the standards include force and motion, kinetic molecular theory, energy transformations, wave phenomena and the electromagnetic spectrum, light, and electricity fields. The standards stress the practical application of physics in the other areas of science and technology and how physics affects our world.

*Forensic Science (4612) – 1 credit*  
(Offered in Grades 11 and 12)

This course is designed to introduce students to various aspects of science and how they relate to the law. The main focus of this course will be techniques used during crime scene investigations. Topics will include fingerprinting, collection of evidence, processing evidence, documentation of evidence and crime scenes through sketches and photography, questioned documents, trace evidence, firearms and tool marks, etc. Principles of criminal law and procedure, preparation and presentation of evidence, examination of witnesses, methods of legal research and procedural rules affecting the collection and use of physical evidence will also be discussed. Students will apply their knowledge to laboratory assignments, simulation crime scenes and mock trials.

## HISTORY / SOCIAL SCIENCES

*World History & Geography to 1500 A.D. (CE) (2215) – 1 credit*  
(Prerequisite: None)

This course enables students to explore the historical development of people, places, and patterns of life from the Paleolithic Age until about 1500 A.D. (CE). Students study the origins of much of our heritage using texts, maps, pictures, stories, diagrams, charts, chronological skills, inquiry/research skills, and technology skills.

*World History & Geography 1500 A.D. (CE) to the Present (2216) – 1 credit (Prerequisite: None)*

This course covers history and geography from 1500 A.D. to the present with emphasis on Western Europe. Geographic influences on history continue to be explored, but increasing attention is given to political boundaries that developed with the evolution of nation-states. Significant attention will be 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 nineteenth and twentieth centuries will be emphasized for their strong connections to contemporary issues. The course covers broad themes of history with emphasis on specific historic events, ideas, issues, persons, and documents. Using texts, maps, pictures, stories, diagrams, charts, and a variety of chronological, inquiry/research, and technology skills, students develop competence in chronological thinking, historical comprehension, and historical analysis.

*World Geography (2210) – 1 credit*  
(Prerequisite: Offered in Grades 9-12)

The focus of this course is the study of the world's people, places, and environments with historical emphasis on Asia, Latin America, Africa, and the Middle East. The knowledge, skills, and perspectives of the course are centered on the world's population and cultural characteristics, its countries and regions, landforms and climates, natural resources, and natural hazards, economic and political systems, and migration and settlement patterns. Spatial concepts of geography will be linked to chronological concepts of history to set a framework for studying human interactions. The course will emphasize how people in various cultures influence and are influenced by their physical and ecological environments. Using texts, maps, globes, graphs, pictures, diagrams, charts, and a variety of geographic, inquiry/research, and technology skills, students consider the relationships between people and places while asking and answering geographic questions.

*VA and United States History (2360) – 1 credit*  
(Prerequisite: Offered in Grade 11)

This course covers the historical development of American ideas and institutions from the Age of Exploration to the present. While focusing on political and economic history, the students will develop a basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in United States and Virginia history.

*VA and United States History (Honors) (2360H) (D-Squared) – 1 credit* (Prerequisites: Offered in Grade 11, Recommended “C” average in World History II or World Geography; passing score on a placement test administered by Patrick & Henry Community College. Students will receive six college credits for HIS 121 and HIS 122.)

The focus of this course is on the major themes, events, and ideas that shaped the history of the United States. Students probe, in depth, the dynamics of American political and diplomatic decision-making, national and sectional interests, and a variety of personalities and social movements related to the development of the United States. Distinguishing characteristics of cultures are examined through literature, art, architecture, music, religion, philosophy and geography. Students will be required to write thoughtful and factually supported papers on historical topics.

*VA & United States Government (2440) – 1 credit*  
(Prerequisite: Offered in Grade 12)

The focus of this course is on the major themes, events, and ideas that shaped the history of the United States. Students probe, in depth, the dynamics of American political and diplomatic decision-making, national and sectional interests, and a variety of personalities and social movements related to the development of the United States. Distinguishing characteristics of cultures are examined through literature, art, architecture, music, religion, philosophy and geography. Students will be required to write thoughtful and factually supported papers on historical topics. In addition, students will study a unit in financial literacy.

*Virginia and United States Government (Honors) (2440H) (D-Squared) – 1 credit*  
(Prerequisites: Offered in Grade 12; Recommended “C” average in regular US History course or passing grade in US History Honors course; passing score on a placement test administered by Patrick & Henry Community College. Students will receive six college credits for PLS 135 and PLS 136.)

This course provides students with challenging assignments in reading, analysis, synthesis, writing, and speaking. Students examine the principles and practices of government, particularly of American government, at national, state, and local levels. The framework for this course includes units on the development of the theories of government, law and the justice system, and current domestic and foreign policy. Students will be required to differentiate among the operations of each of the levels of the United States government.

*20<sup>th</sup> Century History (2387) – 1 credit*  
(Prerequisite: Offered in Grades 9-12)

This course focuses on the events, times and individuals that helped shape the United States during the twentieth century. It is designed to provide an in-depth exploration of special topics that may be covered in a United States history survey course. Students will explore United States history throughout the twentieth century using several types of learning methods that include independent and group research projects. Classroom projects include working collaboratively collecting data. Students use technology to research and communicate information in video or audio format. This class allows students to become exposed to the standards from the World History II and VA & US History SOL's before they enroll in one of those courses.

*African American History (04107) – 1 credit*  
(Prerequisite: Offered in Grades 9-12)

African American History is designed to provide students with a broad overview of the African American experience from ancient Africa through the modern world. The course, supported by a local division curriculum and five online modules, addresses the introduction of Africans to the Americas and the African American experience from 1619 to the present. In addition, the course will highlight the social, cultural, and political contributions of African Americans to American society.

*Sociology (2500) – 1 credit*  
(Prerequisite: None; Offered in Grades 10-12)

Sociology is a science dealing with human relationships and problems of society. The course aids students in gaining insight into their own social relationships and environment. Included in the course content are the study of culture, social groups, deviant and collective behavior, American class structure, minorities, population, ecology, and social institutions (family, education, religion, economics, and government). The application of sociology to social problems such as rural and urban problems, crime and juvenile delinquency, poverty, and youth problems is studied.

*Psychology (2900) – 1 credit*  
(Prerequisite: Offered in Grades 10-12)

Providing a broad, general introduction to psychology, this course emphasizes how the basic subject matter of psychology has been attained by scientific methods. This course examines patterns and variations of human behavior and the process of human development. Students will study how psychological knowledge is applied to improve the quality of life.



# PERSONAL FINANCE

**An Economics and Personal Finance course will be required for graduation beginning with the freshman class of 2011-2012 and beyond.**

*Economics and Personal Finance (6120)—1 credit*  
(Prerequisite: None) (Offered in Grades 10-11)

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 success. In addition to developing personal finance skills, students in the 36-week course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. The course incorporates all economics and financial literacy objectives included in the *Code of Virginia* §22.1-200-03B.

# FINE ARTS

## ART

*Art I: Art Foundations (9120) – 1 credit (Prerequisite: None)*

Art Foundations emphasizes the development of abilities to recognize visual arts content, concepts, and skills to create, discuss, and understand original works of art. The standards represent a thematic approach to visual communication and production, cultural context and art history, judgment and criticism and aesthetics through which students will develop understanding and appreciation for the visual arts. At this level, studio production involves beginning experiences utilizing a variety of media.

*Art II: Intermediate (9130) – 1 credit*  
(Prerequisite: Art I: Art Foundations)

This course extends and refines abilities to investigate and respond to the visual arts. The standards emphasize the importance of content, concepts, and skills involved in the creation of original works of art. The standards introduce a chronological approach to visual communication and production, cultural context and art history, judgment and criticism, and aesthetics that enhance student understanding of the ways in which art functions within a multicultural society. Areas covered are drawing, painting, sculpture, pottery, printing and various crafts. Students are encouraged to develop self-expression through their individual works.

*Art III: Advanced Intermediate (9140) – 1 credit*  
(Prerequisite: Art II: Intermediate)

Advanced Intermediate Art continues the emphasis on development of abilities to organize and analyze visual arts content, concepts, and skills in creating works of art. The focus on art history, critical evaluation and aesthetics is increased, and includes cultural and stylistic issues and creative problem solving. At the advanced level, previous understandings and skills are further emphasized and developed while the students are allowed and encouraged to pursue individual projects and to plan and execute creative products by using a variety of techniques and visual concepts.

*Art IV: Advanced (9145) – 1 credit*  
(Prerequisite: Art III: Advanced Intermediate)

Advanced Art reinforces competence and confidence in skills of analysis evaluation, and creation of works of art. Content and concepts associated with art criticism and aesthetics are central to the refinement of art production skills, and the student-directed approach at this level richly enhances personal expressive abilities. Visual communication and production, cultural context and art history, judgment and criticism, and aesthetics remain the foundation areas of standards. Students pursue independent projects that allow them to expand their unique talents and interests. Students conduct research that is related to their studio production and are given opportunities to exhibit and develop portfolios for college or employment review.

*Art V: Studio Art (9147) – 1 credit*  
(Prerequisite: Art IV: Advanced)

Studio art is a course for advanced art students who want to study areas of art in depth. There is a continued emphasis upon aesthetic knowledge, visual problem-solving, creative growth, and the use of media skills for personal expression. Students are allowed more time for pursuing individual projects, for exploration of art media and techniques, and for developing art skills. The students are allowed to choose areas in which they want to work. Along with the teacher, the student chooses media and subject matter. This may include any area of art such as sculpture, painting, graphics, drawing or crafts. This course may be taken more than once for further knowledge and experience.

## MUSIC

*General Music Grade 8/Beginning Band (Year) (9213)*  
(Prerequisite: Enrolled in Elementary Band)

Developing basic musicianship skills are a priority at the eighth grade level. Students will begin to use articulations, and perform scales and music at a more difficult level. Ensemble skills will become more developed as students participate in band and concert settings. Students will describe concepts common to music and other disciplines, and will be involved in discussing various cultures, styles, composers, and historical periods. After-school opportunities will be available for such activities as All District Band and small group ensembles. Participation in public performances is required, as is uniform dress.

*Marching Band I—IV (9232, 9233, 9234, 9244) - 1 credit each*  
(Prerequisite: Offered in Grades 9-12, (Fall Semester)  
*Elementary Band or Beginning Band*)

Marching Band is an in-depth study of instrumental music. Music designed and composed for band will be explored. Emphasis is placed upon the student's ability to play the instrument. The class will learn marching techniques and will perform at football games, marching competitions and parades, holiday concerts and other public performances. Theory, technique, style and musicality will be stressed in the preparation and performance of all genres of music. Students enrolled in Marching Band will be issued a uniform. Students will assume responsibility for proper care and condition of the uniform. Students will also be required to purchase black marching shoes, black cotton gloves, and a "Marching Cougar Shirt." Marching band is a performance-based class; therefore, attendance at all functions is required. Attendance at Summer Band Camp is mandatory.

Note: Participation in the band is recommended both semesters unless the band director grants special permission. Exceptions will be reviewed and accommodated on an individual basis when possible.



*Flag Corp I—IV (93211, 9323, 9325, 9319) - 1 credit each (Prerequisites: Offered in Grades 9-12 (Fall Semester) - Audition Required)*

Flag Corp is an extension of the Marching Band. Students are responsible for all costs of uniforms and band camp, and are required to attend summer band camp. An intense weekly rehearsal schedule (including after school practice), football games, frequent band performances, weekend competitions, and participation in all band trips are mandatory during the semester. Grading is based upon performance in competitions and football games, as well as practices. Individual performances, skills and attitudes demonstrated in rehearsal and performances will also be considered in grading.

*Concert Band I—IV (9237, 9238, 9239, 9242) - 1 credit each (Prerequisites: Offered in Grades 9-12 (Spring Semester) Elementary Band or Beginning Band)*

The Concert Band will investigate music from the Renaissance to Jazz and 20th Century styles. Emphasis will be placed on intonation, blend rhythm and dynamics. Students will be tested on the above standards through playing tests as well as written assignments. The group will perform for competitions, concerts, or other special events. Concert band is a performance-based class; therefore attendance at all functions is required.

Note: Participation in the band is recommended both semesters. Exceptions will be reviewed and accommodated on an individual basis when possible.

*Beginning Chorus 8 (9271) (Prerequisites: None)*

This course is designed to introduce students to a study of choral music and prepare students for participation in Concert Choir and Honors Choir. Emphasis will be placed on vocal development, music theory and reading, and performance technique. Participation in public performance is required, as is uniform dress.

*Concert Choir I—IV (9289, 92892, 92893, 92894) - 1 credit each (Prerequisites: Offered in Grades 9-12)*

This course is designed to: a) introduce students to a study of choral music, b) prepare students for participation in Honors Choir, and c) provide an enjoyable method to expand the students' musical knowledge. This course will emphasize proper vocal technique, familiarity with basic music theory and learning about a wide variety of musical styles. Participation in public performances is required, as is a uniform dress. Concert choir is a performance-based class; therefore, attendance at all functions is required.

*Ensemble Choir I—IV (9292, 92922, 92923, 92924) 1 credit each (Prerequisites: Offered in Grades 9-12—Audition Required)*

Ensemble Choir continues to develop the voice and proper vocal technique learned in Intermediate Choir or Concert Choir. Knowledge of music theory and sight-reading will be expanded. Participation in public performances is required, as is uniform dress. Students will be expected to be able to rehearse and perform after school hours on a limited base. Honors choir is a performance-based class; therefore, attendance at all functions is required. *Student will compete in different contests at the district, state, and national levels. Auditions will be required for participation in All- District Choir.*

# HEALTH AND PHYSICAL EDUCATION

**Two units of health and physical education in sequence above the eighth grade level are required for graduation. Physical education is taught in conjunction with health in the eighth, ninth, and tenth grades.**

*Health and Physical Education 8 (7200)*  
(Prerequisites: None) (Offered in Grade 8)

Students in grade eight demonstrate competence in skillful movement in modified, dynamic game situations and in a variety of dance and recreational activities. They will transition from modified versions of movement forms to more complex applications across all types of activities—game/sport, dance, and recreational pursuits. This course will incorporate the curriculum from the Career Investigations course to allow students to explore career options and begin investigating career opportunities. Students assess their roles in society, identify their roles as workers, analyze their personal assets, complete a basic exploration of career clusters, select career pathways or occupations for further study, and revisit their Academic and Career Plans based on their academic and career interests. This course also helps students identify and demonstrate the workplace skills that employers desire in their future employees.

*Health and Physical Education 9 (7300) – 1 credit*  
(Prerequisites: None)

In grade nine, students complete the transition from modified versions of movement forms to more complex applications across all types of physical activities. Activities may include games, sports, dances, and recreational pursuits. Students demonstrate the ability to use basic skills, strategies, and tactics as they show more specialized knowledge in identifying and applying key movement concepts and principles. Students develop and assess a personal physical activity program aimed at improving their skill performance. Students demonstrate the ability to plan and improve components of fitness to achieve and maintain a health-enhancing level of personal fitness. Health education may include information concerning alcohol and other drugs, consumer health, disease prevention and control, personal health, growth and wellness, mental health, nutrition, character education, and family life education. Students will be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation.

*Health and Physical Education 10 (7405) & Driver Education Classroom Instruction (7015) – 1 credit*  
(Prerequisites: Health & P.E. 9)

In grade 10, students are proficient in all fundamental movement skills. Students self-select physical activities that they are likely to participate in throughout life. Students understand and apply key movement and fitness principles and concepts for activities in which they demonstrate competence. Students develop the ability to understand and anticipate how physical activity interests and abilities change across a lifetime. Students must demonstrate a level of competency in at least three lifetime physical activities and implement, self-assess, and modify a personal fitness plan. Classroom instruction includes driver education and family life education. Classroom and in-car driver education focus on safe driving attitudes, time, space, and distance perception, skill development, and recognition of appropriate response to hazards in the ever-changing

driving environment. Students apply basic driving skills in low-to-moderate traffic situations and progress to demonstration of skill proficiency in more complex traffic situations. Throughout the course, emphasis is placed on extensive supervised practice with a licensed parent or guardian to develop precision in the use of skills, processes, and responsibilities.

*Advanced Physical Education I (7650) – 1 credit (Prerequisite: Recommended "C" in Health/PE 10; Offered in grades 11-12)*

This course provides students opportunities to expand the scope of their skill in physical education to include officiating, coaching, and teaching. An additional goal is to foster lifetime fitness. Emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Individual fitness levels are assessed. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects wellness. Activities include weight training and conditioning, fundamentals of coaching and teaching, and sport specific training. Throughout this course, student fitness levels will be monitored with the use of individual records that incorporate charts and graphs. This course is for elective credit.

*Sport Training I (Sport, Exercise and Health Science) (7638) – 1 credit (Prerequisite: Offered in grades 9-12; recommended "C" in previous PE class)*

This course is designed for the student-athlete and will introduce students to training techniques and exercises specific to each sport. Students will learn the basic fundamentals and terminology for strength and conditioning. Focus will be placed on the five core areas of fitness and the importance of weight training and conditioning for athletes will be emphasized. Students will learn to set fitness goals and be responsible for tracking their individual progress throughout the semester. This course is for elective credit.

*Sport Training II (Advanced PE) (7640) – 1 credit*  
(Prerequisite: Sport Training I; Offered in grades 10-12; recommended "C" in previous PE class)

This course is designed for the student-athlete and will expand the scope of their skill in specific sport training and conditioning. Students will continue to develop and improve in all five core fitness areas with focus on training specific to their individual sport. Students will continue to develop personal fitness goals and track progress throughout the class. Students will explore the importance of nutrition and the vital role it plays in an athlete's overall development and performance. Students will set personal nutritional goals and begin to create their own diet plans based on caloric needs. This course is for elective credit.

*Sport Training III (PE Grade 11)(7510) – 1 credit*  
(Prerequisite: Sport Training II; Offered in grades 11-12; recommended "C" in previous PE class)

This course is designed for the student-athlete and will expand the scope of their skills and knowledge of sports specific training. Students will continue to develop and improve proper lifting and training techniques, with a special focus on specific muscle groups. Students will continue to track progress and develop goals for the semester. Students will research and review different sports training techniques and learn to create workouts for themselves. A workout and diet plan developed by each student specifically for their own sport and fitness goals will be used to assess and check for student understanding. This course is for elective credit.

*Sport Training IV (PE Grade 12) (7610) – 1 credit*  
(Prerequisite: Sport Training III; Offered in grade 12;  
recommended “C” in previous PE class)

This course is designed specifically for the student-athlete and will expand the scope of their skills and knowledge of sport specific training. Students will master correct form and technique for specific lifting and training exercises. Each student will set specific goals, as well as develop a comprehensive sport specific training and diet plan to insure peak performance for the student-athlete. Students will be introduced to collegiate athletic training techniques to prepare students for college athletics and careers. Career paths in strength and conditioning as well as athletic training will be discussed. Students will develop life-long fitness goals to ensure healthy habits are maintained once the student has graduated. This course is for elective credit.

## WORLD LANGUAGE

Note: Oral presentations are integrated throughout the world language curriculum in order to develop and promote oral fluency in the language. It is recommended that the student receive a “C” in the previous level of a world language prior to advancing to the next level of world language.

*Spanish I (5510) –1 credit (Prerequisites: Recommended “C” in English)*

Spanish I is a study of the Spanish language, which gives primary emphasis to the oral aspects of the language, both understanding and speaking. Included in class activities are dialogues, oral and written exercises, study of basic grammatical structures, readings, singing, dancing, cultural films, projects, games, and daily conversations in Spanish. Oral presentations are done frequently and are a major part of the class grade.

*Spanish II (5520) —1 credit*  
(Prerequisites: Recommended “C” in Spanish I)

The focus on Spanish II is on refining pronunciation and demonstrating a greater ability to communicate in Spanish. Included in classroom activities are dialogues, oral and written activities, study of more complicated grammatical structures, readings, singing, dancing, cultural films, projects, games, and a continuing emphasis on daily conversations.

*Spanish III (Advanced) (5530A) —1 credit (Prerequisites: Recommended “C” in Spanish II; offered in Grades 10-12)*

Spanish III is a continuous building of vocabulary and grammatical structures. Focus is on oral presentations and directed student interaction, e.g., dialogues, skits, discussions, interviews, and summaries. Students are expected to use Spanish almost exclusively in classroom conversation.

*Spanish IV (Honors) (5540H) 1 credit*  
(Prerequisites: Recommended “C” in Spanish III; offered in Grades 11-12; passing score on a placement test administered by Patrick & Henry Community College. Students must take as dual enrollment and must meet DE requirements. Students will earn 8 college credits for SPA 101 and SPA 102

Spanish IV is a continuous building of vocabulary and grammatical structures through conversations, readings, and writings in the language. Students are expected to make acceptable and exclusive use of Spanish in classroom communication.

*Spanish V (Honors) (5550H) —1 credit*  
(Prerequisites: Recommended “C” in Spanish IV; passing score on a placement test administered by Patrick & Henry Community College. Students must take as dual enrollment and must meet DE requirements. Students will earn 8 college credits for SPA 201 and SPA 202 Students may be eligible to take the AP Exam upon successful completion of this course.)

Spanish V is designed to increase the student’s ability to comprehend and to use formal and informal spoken Spanish. Students are required to use Spanish exclusively in classroom communication. Course content includes formal and informal oral presentations, advanced grammar, short stories, Hispanic civilization and culture and the study of selected Spanish literary classics. Practice for the Advanced Placement Spanish Language Exam is given at various times during the course.

## ENGLISH LEARNERS

*English as a Second Language I—IV (5710, 5720, 5730, 5731) - 1 credit each (Prerequisites—LEP Plan)*

This progression of courses is designed for the non-English speaking student or the Limited English Proficiency learner. These courses include vocabulary in context and provide practice, exercises in the basic skills necessary for success with particular emphasis in academic subjects. Students may enroll in these classes each year until they have achieved basic fluency in English. Some instruction in the native language is also provided.

# CAREER & TECHNICAL EDUCATION

PCHS Career and Technical Education (CTE) programs serve approximately 1600 students each year. Career and Technical Education (CTE) courses give students the opportunity to apply academic knowledge and skills to real world issues. A variety of career and technical programs are offered to all students at the high school level. Regardless of post-secondary goals, all students can benefit from taking these courses. In addition, students that complete CTE programs have the opportunity to earn industry-recognized credentials that will give them a competitive advantage in their future endeavors.

**For more information about becoming a CTE completer or about the testing provided, please contact your school counselor.**

## Career and Technical Education Definitions:

A **concentration** is a coherent sequence of state-approved courses as identified in the course listings within the Web-based Administrative Planning Guide (APG).

A career and technical education **completer** is a student who has met the requirements for a career and technical concentration (sequence) and all requirements for high school graduation or an approved alternative education program. Students may take additional career and technical education courses that will enhance their career pathway goals.

A **specialization** is a student choice to take additional courses beyond a minimum completer course sequence in a specific career cluster area related to his/her career pathway.

A **credential** is defined as:

- State-Issued Professional License, required for entry into a specific occupation as determined by a Virginia state licensing agency (CNA, Cosmetology);
- Full Industry Certification, from a recognized industry, trade, or professional association validating essential skills of a particular occupation (Microsoft Office Specialist);
- 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); or
- Occupational competency assessment or a national standardized assessment of skills/knowledge in a specific career and/or technical area.

Students entering ninth grade for the first time any time during 2013-2017 must:

- Earn a board-approved career and technical education credential to graduate with a Standard Diploma; and
- Successfully complete one virtual course, which may be non-credit bearing.

Students entering ninth grade for the first time in 2018-2019 and beyond must:

- Earn a board-approved career and technical education credential to graduate with a Standard Diploma or an Advanced Studies Diploma if they have not successfully completed an Advanced Placement, Honors, or International Baccalaureate course, and
- Successfully complete one virtual course, which may be non-credit bearing.

The school counselors can advise on available courses to fulfill the requirements.

## Education for Employment

A student may be designated a program completer by combining Education for Employment courses with other career and technical programs/courses that complement his/her career objectives as specified in the IEP for students with disabilities.

### Sequential Electives

Sequential electives are defined as two or more courses of study in a focused sequence of elective courses.

### Career Concentration

A Career Concentration is a coherent sequence of courses completed by a student in a specific career area.

## CERTIFICATIONS, LICENSES & ASSESSMENTS

All students earning a Standard Diploma who entered ninth grade any time during 2013-2017 MUST pass a state approved industry certification to graduate. All students earning a Standard Diploma or an Advanced Studies Diploma who enter ninth grade in the 2018-2019 school year and beyond MUST pass a state approved industry certification to graduate IF they do not successfully complete an Advanced Placement, Honors, or International Baccalaureate course. Multiple courses offer end of course certifications to students at no charge including Economics & Personal Finance, a course all students are required to take and pass. Additional Virginia State approved industry certifications could be added throughout the year.

Industry certifications currently offered at Patrick County High School are listed on the next page.

# CAREER & TECHNICAL EDUCATION

## Available Certifications:

**Agriculture/Horticulture** – *Private Applicator Certification Examination*

**Auto Technology II**—*Automotive Service Excellence Student Certificate*

**Cosmetology**—*Virginia Board of Barbers and Cosmetology State Cosmetology License*

**Culinary Arts I** – *National Restaurant Association ServSafe Manager Certification*

**Digital Applications** – *Microsoft Office Specialist*

**Drafting II, III** – *Certified SOLIDWORKS Associate Examination*

**Economics & Personal Finance**- *W!SE Financial Literacy*

**Health & Medical Sciences**—*Virginia Board of Nursing Nurse Aide Certificate*

**Mechatronics** - *Siemens Level 1 Mechatronics Certification*

## **Cooperative Education**

Cooperative education is a method of instruction that combines Career and Technical classroom instruction with paid employment directly related to the classroom instruction. Both student instruction and employment are planned and supervised by the school and the employer so that each contributes to the student's career objectives and employability. Students may Co-op in any of the following areas: Agriculture Education; Business and Information Technology; Career Connections; Family and Consumer Sciences; Health and Medical Sciences; Marketing; Trade and Industrial Education. Students interested in cooperative education need to register for a Career and Technical class from the areas listed above, fill out a Co-op education application, and the job must be approved by the Co-op coordinator or CTE director prior to end of school year preceding enrollment. A student will be removed from the program if any violations of the agreement occur and placed in a class based on availability.

# CAREER & TECHNICAL EDUCATION

## AGRICULTURE

*Foundations of Agriculture, Food and Natural Resources (8006)*  
– 1 credit (Prerequisite: Offered in grades 8-10)

This course is designed to develop competencies in each of the career pathways as they pertain to agricultural education, including the areas of Virginia's agriculture industry; the global scope of agriculture; scientific research concepts in plant, animal, and food science; principles of leadership and opportunities within student organization [FFA]; agribusiness and Supervised Agricultural Experience program opportunities; agricultural skills and safety; forestry and wildlife; and natural resources and environmental systems.

*Introduction to Natural Resources and Ecology Systems (8040)*–  
1 credit (Prerequisite: *Foundations of Agriculture, Food and Natural Resources*)

This course serves as the introductory level course for the Natural Resources Career Pathway. Students will explore the study of natural resources and begin to develop skills and knowledge required for employment in occupations related to forestry, wildlife and natural resources management, and conservation. Special emphasis is placed on opportunities in the FFA.

*Forestry Management (8042)* – 1 credit (Prerequisites:  
*Foundations of Agriculture, Food and Natural Resources* and  
*Intro to Natural Resources and Ecology Systems*)

This course will offer students instruction in the management of the forest as a resource and as a business. Students will develop knowledge in areas like tree physiology, forest ecology, silviculture, and the management and marketing of forest products. Strong emphasis is placed on developing career skills for the forestry industry as well as are continued opportunities available through FFA.

*Introduction to Animal Systems (8008)* -1 credit  
(Prerequisites: Offered in Grades: 9-12)

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.

*Livestock Production Management (8012)*-1 credit  
(Prerequisites: Offered in Grades 11-12)

Course includes instruction in agricultural mechanics, with emphasis placed on the application of mechanical skills to farm power and machinery, soil and water management, supervised farming programs, and leadership training.

*Agricultural Fabrication & Emerging Technologies (8019)*-1  
credit (Prerequisites: Offered in Grades 10-12)

Students will receive instruction in metal fabrication, including cutting, welding, and cold metalworking processes, for agricultural applications. The course will also include the investigation of emerging technologies

*Small Animal Care I (8083)* - 1 credit  
(Prerequisites: Offered in Grades 9-12)

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. State CTE guidelines require that students enrolled in this course take an active part in hands-on animal care. Students will be in contact with different animals, fur, dander, and feeds on a daily basis. Students with known allergies should seek permission from their medical caregiver before enrolling in this course.

## HORTICULTURE

*Horticulture Sciences (8034)* – 1 credit  
(Prerequisites: Offered in grades: 9-12)

Through laboratory activities, students apply scientific principles to the field of horticulture, including the areas of floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They practice safety, develop leadership traits, use plant-growing media, and identify, propagate, and grow horticultural plants in the greenhouse and land laboratory.

*Landscaping I (8036)* – 1 credit  
(Prerequisite: Offered in grades: 10-12, *Horticulture Sciences*)

Landscaping offers skilled workers satisfying career opportunities in varying working environments. The expanding and evolving green industry keeps skilled workers in high-demand occupations with

educational and leadership opportunities. This course focuses on preparing students for entry-level employment and advancement in landscape design, landscape construction, and landscape maintenance.

*Landscaping II – (8039)*-1 credit (Prerequisite: Offered in  
Grades: 11- 12 *Landscaping I*)

Landscaping offers skilled workers satisfying career opportunities in varying working environments. The expanding and evolving green industry keeps skilled workers in high-demand occupations that feature educational and leadership opportunities. This course focuses on preparing students for entry-level employment in commercial landscaping through hands-on experiences. Students will design landscapes and install components, including lighting, hardscapes, and water features within an environment of the landscaping business enterprise.

*Greenhouse Plant Production and Management (8035)* - 1 credit  
(Prerequisite: Offered in Grades: 10-12, *Horticulture Sciences*)

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.

# CAREER & TECHNICAL EDUCATION

*Turf Grass Establishment and Maintenance (8051) -1 credit*  
(Prerequisite: Offered in Grades: 10-12 Horticulture Sciences)

Students begin to master the duties and tasks of professionals who establish and maintain turf in public areas such as golf courses; parks; athletic fields; school, industrial, and institutional campuses; and residential lawns.

*Turf Grass Applications Advanced (8054) 1 credit—*  
(Prerequisite: Offered in Grades: 11-12, Turf Establishment and Maintenance)

Students continue to study the duties and tasks of professionals who establish and maintain turf in public areas such as golf courses; parks; athletic fields; school, industrial, and institutional campuses; and residential lawns.

## AGRICULTURE AND HORTICULTURE CO-OP'S

*Agriculture Cooperative Work Experience – (C-Semester; Y-Yearlong. (Offered in Grades 11-12) Must be enrolled in an Agriculture Education class first or second semester.*

A Co-op student is required to work a minimum of 396 hours for one credit and 540 hours for two credits each semester. On-the-job training will take place during school, after school and on weekends both 1st and 2nd semester. Co-op employees receive training, money, and school credit for completing both the class work and on-the-job training. *The student* is responsible for obtaining a school-approved position and will need to fill out a coop education application. *The student* is also responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by teacher and the CTE director prior to end of school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program and will not receive credit for Co-op if they fail the directly related class. Also, a student will be removed from the program if any violations of the agreement occur and will be placed in a class based on availability. Students who register for Agriculture Co-op must be enrolled in one of the following during the school year: Livestock Production Management (8012); Agricultural Fabrication & Emerging Technologies (8019); Small Animal Care (8083); Greenhouse Plant Production and Management (8035); Landscaping I (8036); Landscaping II (8039); Turf Establishment and Maintenance (8051); and Advanced Turf Grass Applications (8054).

## BUSINESS AND INFORMATION TECHNOLOGY

*Digital Applications (6611) -1 credit*  
(Prerequisites: Offered in Grade 8)

Students develop or review correct keyboarding techniques and gain a basic knowledge of word processing, spreadsheet, database, graphics, and telecommunications applications. Students demonstrate an understanding of computer concepts through application of knowledge. Students learn to use software packages and local and worldwide network communications systems. Grade 8 Computer/Technology Standards of Learning are incorporated and reinforced in this course.

*Principles of Business and Marketing (6115) - 1 credit*  
(Prerequisites: Offered in Grades 8-12)

This course is offered on an elective basis to all students and is a foundation to the occupational preparation programs in business. Students explore the role of Business and Marketing in the free enterprise system and the global economy. They will study how the American economy operates and prepare to make decisions as consumers, wage earners and citizens. Students will also obtain an understanding of the career options available within the fields of Business and Marketing. This course is “hands on” and project driven to give students opportunities to learn what it would be like to work in the Business and Marketing field. NOTE: On-the-job training is available to students who choose to complete the required hours of training.

*Business Management (6135) - 1 credit*  
(Prerequisites: Offered in Grades 9-12)

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision-making are an integral part of the course. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA).

*Design, Multimedia and Web Technologies (6630) – 1 credit*  
(Prerequisites: Offered in Grades 10-12)

Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Web sites, using software such as: Microsoft Publisher, Adobe Dreamweaver, Adobe Photoshop, and Adobe Premiere. Students will also obtain an understanding of the career options available within the fields of Design, Multimedia and Web Technologies. This course is “hands on” and project driven to give students opportunities to learn what it would be like to work in the Design, Multimedia and Web Technologies field. NOTE: On-the-job training is available to students who choose to complete the required hours of training.

# CAREER & TECHNICAL EDUCATION

## *Office Administration (6621) - 1 credit* (Prerequisites: Offered in Grades 10-12)

Students enhance word processing and communication skills as they develop competencies needed by administrative support professionals. Students study office procedures such as information processing, telecommunications, electronic record management, and financial records management.

## *Accounting (6320) - 1 credit* (Prerequisites: Offered in grades: 10-12)

Accounting students study the basic principles, concepts, and practices of the accounting cycle for a service business and a merchandising business. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash control systems. Business ethics and professional conduct are emphasized. Students learn fundamental accounting procedures, using both manual and electronic systems.

## *Accounting Advanced (6321) - 1 credit* (Prerequisites: Offered in grades: 11-12, Accounting)

Advanced Accounting students gain knowledge of advanced accounting principles, procedures, and techniques used to solve business problems and make financial decisions. Students work in a technology-integrated environment, using accounting and spreadsheet software to analyze, synthesize, evaluate, and interpret business financial data related to inventory, fixed assets, notes/accounts payable and receivable, implementation of a partnership and a corporation, and other specialized accounting systems. Using authentic workplace scenarios that reflect current industry trends and standards, students analyze financial data and acquire knowledge of business ethics.

## *Computer Information Systems (6612) - 1 credit* (Prerequisites: Offered in grades: 9-12)

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies.

## *Computer Information Systems Advanced (6613) - 1 credit* (Prerequisites: Offered in grades: 10-12; Computer Information Systems with a recommended grade of "C" or better).

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and Web publications. Students work individually and in groups to explore advanced computer maintenance activities, Web site development, programming, networking, emerging technology, and employability skills.

## *Programming (6640) - 1 credit* (Prerequisites: Offered in grades: 10-12)

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 JavaScript to create Web pages. Students develop their employability skills through a variety of activities.

## *Modeling and Simulation Technology (8460) - 1 credit* (Prerequisites: Offered in grades: 10-12)

Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering, and mathematics (STEM). The activities will include evaluating and testing engineering designs, modeling geospatial data, observing and analyzing physics simulations, programming games for educational purposes, and creating visualization systems with 3D models. Students will develop an understanding of the systems, processes, tools, and implications of the field of modeling and simulation technology.

## **BUSINESS AND INFORMATION TECHNOLOGY CO-OP'S**

*Co-op Business and Information Technology (C-Semester; Y-Yearlong; Offered in Grades 11-12) Must be enrolled in a Business and Information Technology class first or second semester.*

A Co-op student is required to work a minimum of 396 hours for one credit and 540 hours for two credits each semester. On-the-job training will take place during school, after school, and on weekends both first and second semester. Co-op employees received training, money, and school credit for completing both the class work and on-the-job training. The student is responsible for obtaining a school approved position and will need to fill out a Co-op education application. The student is also responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by Co-op coordinator or CTE director prior to the end of the school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program and will not receive credit for Co-op if they fail the directly related class. A student will be removed from the program if any violations of the agreement occur and will be placed in a class based on availability.



# CAREER & TECHNICAL EDUCATION

## MARKETING EDUCATION

*Sports and Entertainment Marketing (8175)–1 credit*  
(Prerequisites: Offered in Grades: 9-12)

Sports and Entertainment Marketing is designed for students with an interest in the fields of sports and entertainment. In addition to a marketing overview, this course will cover advertising, sales, event marketing and communications, and local tourism. The main topics of this class include professional sports (NFL, NBA, MLB, NASCAR, etc.), different theme parks, concert and arena productions, themed restaurants, merchandising, tourism, and sponsorships. Students will also obtain an understanding of the career options available within the fields of sports and entertainment. This course is “hands on” and project driven to give students opportunities to learn what it would be like to work in the sports and entertainment industries by completing an online simulation where they will run their own stadium. NOTE: On-the-job training is available to students who choose to complete the required hours of training.

## MARKETING CO-OP'S

*Co-op Marketing (C-Semester; Y-Yearlong;*  
*Offered in Grades 11-12) Must be enrolled in a Marketing class*  
*first or second semester*

A Co-op student is required to work a minimum of 396 hours each semester. On-the-job training will take place during school, after school and on weekends both *1st and 2nd semester*. Co-op employees receive training, money, and school credit for completing both the class work and on-the-job training. The student is responsible for obtaining a school approved position and will need to fill out a Co-op education application. The student is responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by Co-op coordinator or CTE director prior to the end of the school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program if any violations of the agreement occur and placed in a class on availability. Students who register for the Marketing Co-op must be enrolled in one of the following during the school year: Sports and Entertainment Marketing (8175)

## TECHNOLOGY EDUCATION

*Technical Drawing and Design (8435) - 1 credit*  
(Prerequisites: Offered in Grades: 9-12)

Technical Drawing/Design is a foundation course for students to experience the basic language of industry and technology. Students design, sketch, and make technical drawings, models, or prototypes of real design problems. The course is especially recommended for future engineering and architecture students.

*Engineering Drawing and Design (8436) – 1 credit*  
(Prerequisites: Offered in Grades: 10-12. Technical Drawing and Design).

Students explore the engineering design process and use a graphic language for product design, technical illustration, assembly, patent, and structural drawings. They increase their understanding of drawing and the design process and techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems.

*Drafting I- (8530) – 1 credit (Offered in Grades 9-12)*

Students explore drafting careers and are introduced to the theory and the manipulative skills necessary to produce and complete accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students begin to focus on performing mechanical drafting and design operations, using CADD.

*Drafting II- (8531) – 2 credits*  
(Offered in Grades 9-12; Prerequisites: 1 block each semester, Drafting I)

Students master the theory and manipulative skills necessary to produce complete and accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students focus on performing mechanical drafting and design operations, using CADD, and exploring careers in drafting including industry certification options.

*Drafting III- (8532) – 2 credits (Offered in Grades 11-12;*  
*Prerequisites: 1 block each semester, Drafting II)*

Students are taught the theory and the manipulative skills necessary to produce and complete accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students focus on performing architectural drafting and design operations, using CADD, and exploring careers in drafting, including industry certification options.

## FAMILY AND CONSUMER SCIENCES

*Independent Living (8219) - 1 credit (Prerequisites: Offered in*  
*grades 8-12)*

Students in Independent Living build life skills focusing on establishing positive relationships, balancing work and family life, investigating careers, making responsible consumer choices, applying nutrition and wellness knowledge, and studying child development and parenting.

*Nutrition and Wellness (8229) – 1 credit (Prerequisites: none;*  
*Offered in grades 9-12)*

Students investigate the principles of nutrition and wellness, use science and technology in food management, ensure food safety, plan menus, prepare food, and explore careers. Students prepare for careers by using critical thinking and practical problem-solving skills as well as other workplace readiness skills. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

*Child Development & Parenting (8232) – 1 credit (Prerequisites:*  
*Offered in grades 9-12)*

Students enrolled in Child Development and Parenting learn about parenting roles and responsibilities and parenting practices that maximize human growth and development. They focus on ensuring a healthy start for parent and child, balancing work and family, and understanding support systems that provide services for families.

# CAREER & TECHNICAL EDUCATION

*Introduction to Culinary Arts (8250) -1 credit (Prerequisites: Offered in grades 9-12)*

The Introduction to Culinary Arts curriculum provides students with opportunities to explore career options and entrepreneurial opportunities within the food service industry. Students investigate food safety and sanitation, explore culinary preparation foundations, practice basic culinary skills, explore diverse cuisines and service styles, investigate nutrition and menu development, and examine the economics of food. The curriculum places a strong emphasis on science and mathematics knowledge and skills. State CTE guidelines require that students enrolled in this course take an active part in food preparation. Students will be exposed to many different foods including, but not limited to peanuts/tree nuts, milk and milk products, soy and soy products, eggs, gluten, fish and shellfish. Students with known allergies should seek permission from their medical caregiver before enrolling in this course.

*Culinary Arts I (8275) -2 credits (2 blocks per day)  
(Prerequisites: Introduction to Culinary Arts; Offered in grades 10-11)*

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. Students will have the opportunity to earn the ServSafe Manager Certification. State CTE guidelines require that students enrolled in this course take an active part in food preparation. Students will be exposed to many different foods including, but not limited to peanuts/tree nuts, milk and milk products, soy and soy products, eggs, gluten, fish and shellfish. Students with known allergies should seek permission from their medical caregiver before enrolling in this course.

*Culinary Arts II (8276) – 2 credits (2 blocks per day)  
(Prerequisites: Culinary Arts I; offered in grades 11-12)*

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. State CTE guidelines require that students enrolled in this course take an active part in food preparation. Students will be exposed to many different foods including, but not limited to peanuts/tree nuts, milk and milk products, soy and soy products, eggs, gluten, fish and shellfish. Students with known allergies should seek permission from their medical caregiver before enrolling in this course.

*Introduction to Fashion Careers (8248)-1 credit  
(Prerequisites: Offered in Grades: 9-12)*

Students in Introduction to Fashion Careers focus on identifying and exploring the individual careers within the apparel, accessory, and textile design, manufacturing, and merchandising industry. Units of study include the relationships that exist among all areas of the clothing industry; related global and economic issues; apparel, accessory, and textile technology; exploration of careers, including entrepreneurial opportunities in related areas; and the skills and personal characteristics necessary for success in careers in the apparel, accessory, and textile design, manufacturing, and marketing industry.

*Introduction to Early Childhood Education and Services (8234)  
– 1 credit (Prerequisites: Offered in Grades: 10-12; 9<sup>th</sup> graders may enroll after all 10<sup>th</sup>-12<sup>th</sup> graders interested if number does not exceed 20)*

Students focus on careers related to the early childhood field through hands-on exploration, projects, and cooperative learning experiences, including an overview of principles of child growth and development; appreciation of diversity; engaging learning experiences for children; principles of appropriate and effective guidance; healthy and safe environments; and development of self-concepts and building self-efficacy. Students are required to complete a field study at the elementary school.

*Virginia Teachers for Tomorrow I (9062) – 1 credit  
(Prerequisite: 3.0 GPA and Teacher Recommendation; Offered in Grades 11-12, Grade 12 priority).*

Virginia Teachers for Tomorrow (VTfT) fosters student interest, understanding, and appreciation of the teaching profession and allows secondary students to explore careers in education. Students build a foundation for teaching; learn the history, structure and governance of teaching; apply professional teaching techniques in the VTfT classroom and field experience; and reflect on their teaching experiences. Additional educational leadership opportunities are offered through the student organization, Educators Rising.

*Note: Virginia Teachers for Tomorrow I may be offered as a complement to an existing concentration sequence in any Career Cluster. In some instances, where noted, it may be combined with specific courses to create concentration sequences.*

# CAREER & TECHNICAL EDUCATION

## FAMILY AND CONSUMER SCIENCES CO-OP'S

*Co-op Introduction to Early Childhood, Education, and Services-8234(C-Semester; Y-Yearlong; Offered in Grades 11-12) Must be enrolled in a Family and Consumer Science class first or second semester*

A Co-op student is required to work a minimum of 396 hours each semester. On-the-job training will take place during school, after school, and on weekends both first and second semester. Co-op employees received training, money, and school credit for completing both the classwork and on-the-job training. The student is responsible for obtaining a school approved position and will need to fill out a Co-op education application. The student is also responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by Co-op coordinator or CTE director prior to the end of the school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program if any violations of the agreement occur and placed in a class based on availability. Students who register for Family and Consumer Sciences Co-op must be enrolled in one of the following during the school year: Introduction to Culinary Arts (8250/36 Weeks); Culinary Art I (8275); Culinary Arts II (8276); Introduction to Interior Design (8255); Introduction to Fashion Careers (8248); Child Development and Parenting (8232); Introduction to Early Childhood Education and Services (8234); Virginia Teachers for Tomorrow I (9062); Introduction to Hospitality, Tourism, and Recreation (8259); Hospitality, Tourism, and Recreation I (8202).

*Introduction to Hospitality, Tourism, and Recreation (8259) – 1 credit (Offered in Grades 9-12)*

Students enrolled in introduction to Hospitality, Tourism, and Recreation focus on developing professional skills and using emerging technologies to prepare for employment in this global industry, rich in diverse career opportunities. The program includes instruction in the industries of lodging, food and beverage, travel and tourism, and recreation and fitness.

*Hospitality, Tourism, and Recreation I (8202) – 2 credits (Offered in Grades 9-12; Prerequisite: 2 blocks per day, Introduction to Hospitality, Tourism, and Recreation.)*

Students begin preparation for employment in hospitality industries by focusing on principles of operations in food services, recreation, hospitality planning, and business relations. Special attention is paid to The development of culinary skills (food sanitation, food preparation, and serving) and customer service skills.

## HEALTH AND MEDICAL SCIENCES

Students who successfully complete *Nurse Aide I & Nurse Aide II* may choose to take the Nurse Aide Certification Exam for certification as a nurses' assistant. To be eligible to take the certified nursing assistant exam, a student must complete *Nurse Aide I & Nurse Aide II* with an average of 80% or higher, and have completed 140 hours of classroom time, 20 hours of which shall be specifically designated for skills acquisition in the laboratory setting, and 40 hours of clinical time. Upon passing the exam, students will receive two verified credits. *Students will be required to take both Nurse Aide I & Nurse Aide II in the same year, and should plan their schedules to accommodate this.*

*Introduction to Health and Medical Services (8302) – 1 credit (Prerequisites: Offered in Grades 9-12)*

This course introduces the student to a variety of healthcare careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. healthcare system and to learn basic healthcare terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the healthcare environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care.

*Nurse Aide I (8360) - 2 credits*

*(Prerequisites: 2 blocks per day in fall semester, offered in Grades 11-12 Priority given to juniors and/or Intro to Health Occupation students; application and interview may be required).*

Nurse Aide I, offered as an occupational preparation course beginning at the 11th-grade level, is regulated under the Virginia Board of Nursing. It emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development across the lifespan, simple body structure and function, and medical terminology. They are introduced to concepts of infection prevention and disease processes. Students receive entry-level skill training in patient nurse aide relationships; measuring and recording of vital signs; cardiopulmonary resuscitation; and general patient care. Work-based learning may be offered as part of this course. The Nurse Aide I course introduces students to careers in nursing, health professions, and STEM-H professions. Students must maintain American Heart Association's Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC) training during this course. Recommended prerequisites: Introduction to Health and Medical Sciences (8302). Some health care facilities that accept federal funding (e.g., Medicare, Medicaid) may require criminal background checks and drug screens for students participating in a clinical experience. An updated immunization record will be required prior to the student participating in clinical experience.

*Commonwealth of Virginia Regulations Governing Certified Nurse Aides Virginia Board of Nursing:*

[www.dhp.virginia.gov/nursing/leg/CNA\\_02272014.doc](http://www.dhp.virginia.gov/nursing/leg/CNA_02272014.doc)

# CAREER & TECHNICAL EDUCATION

## *Nurse Aide II (8362) – 2 credits*

*(Prerequisites: 2 Blocks per day in spring semester; Offered in Grades: 11-12; Nurse Aide I; application and interview may be required)*

Nurse Aide II is an occupational preparation course, emphasizing body systems and diseases as related to advanced clinical care of acute medical-surgical patient, the chronically ill, and the elderly. Students receive skills training and hands on clinical experiences in a health care setting. Work-based learning in a health care facility is part of the course. Students must maintain American Heart Association's Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC) training during this course. This course requires students to meet the Virginia Board of Nursing required clock hours to be eligible to take the National Nurse Aide Assessment Program (NNAAP) exam. Additionally, this course includes the approved opiate competencies for health and medical sciences education. Some health care facilities that accept federal funding (e.g., Medicare, Medicaid) may require criminal background checks and drug screens for students participating in a clinical experience. An updated immunization record will be required prior to the student participating in clinical experience.

*Commonwealth of Virginia Regulations Governing Certified Nurse Aides Virginia Board of Nursing:*

[www.dhp.virginia.gov/nursing/leg/CNA\\_02272014.doc](http://www.dhp.virginia.gov/nursing/leg/CNA_02272014.doc)

## *Sports Medicine/Athletic Training I Condensed (8316) – 1 credit* *(Prerequisite: Offered in Grades 11-12)*

In this course, students earn a certification in First Aid/CPR/AED. The course introduces students to topics such as human anatomy and physiology, nutrition, biomechanics, medical terminology, injuries and illnesses, and legal and ethical issues in sports medicine. Students also examine prospective careers in the sports medicine field. Upon successful completion of this course, students are eligible to take Sports Medicine II and pursue certification as a personal trainer. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

## *Sports Medicine/Athletic Training II Condensed (8317) – 1 credit* *(Prerequisite: Offered in Grade 12; Sports Medicine/Athletic Training I Condensed)*

Upon successful completion of this course, students will be eligible to take the National Academy of Sports Medicine-Certified Personal Trainer (NASM-CPT) exam. This course builds upon basic knowledge acquired in Sports Medicine I on topics such as exercise physiology, biomechanics, exercise program design, and injury prevention, assessment, treatment, and management. Students will assess fitness, measure body composition, and design exercise programs. Students prepare for a career in sports medicine, including completing an internship, practicing interview skills, and building a resume.

Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

## SCHOOL TO WORK

### *Career Education (0118) - 1 credit*

*(Prerequisites: Offered in Grade: 12; May be taken only one time. Students have successfully completed core area subjects to date and are grade appropriate. An application is required with a recommendation for final approval by the administration).*

This course is for designated students who are interested in working in school support services such as: office assistants, tutors, library aides, etc. All students participating in this program are required to sign a contract of agreement stating expectations and responsibilities of the participant.

### *Career Education II (01182) – 1 credit (Prerequisites: Career Education I; an application is required with a recommendation for final approval by the administration)*

This course is for designated students who are interested in continuing to work in school support services such as: office assistants, tutors, library aides, etc. Students have successfully completed Career Education I and have a desire to further explore the field placement assigned, gaining more experience, responsibility, and acquiring the ability to work independently. All students participating in this program are required to sign a contract of agreement stating expectations and responsibilities of the participant. In order to be considered, students must submit an application for approval which must have a minimum of two administrator or administrative assistant signatures.

### *Civic Internship I-III (98281, 98282, 98283) - 1 credit*

*(Prerequisites: Offered in Grades 10-12, open to students who can drive themselves to site. An application is required with a recommendation for final approval by the administration.*

Provides on-the-job experience related to students' career goals or interests. This class is coordinated with local businesses, industries, or community organizations. Students will journal in detail their daily activities as related to career development, be evaluated by a job supervisor, and write a 1-2 page paper on work-related experiences each grading period. This placement must be outside of the high school. Students are responsible for securing their own site and providing their own transportation. Civic Internship I, II, and III must be at different placements.

### *Career Connections/Career Strategies (9071) – 1 credit* *(Prerequisite: Offered in Grade 8)*

Career Connections/Career Strategies is a study of career clusters through a variety of investigative, hands-on activities using industry specific equipment. This course allows students to create a path towards obtaining a high-level technical skill set that successfully translates across a variety of STEM based career options and economic markets. Students will progress through units with activities on CNC Machining, Electrical Engineering, Healthcare, IT Coding and Programming, Manufacturing and Industrial Engineering, Mechanical Engineering, Metrology, Robotics, and Welding. Students have the opportunity to explore career options as well as compare various educational opportunities. Students observe, analyze, and report on the demand for workers, worker qualifications, organizational structures, quality control measures, selected policies and regulations, ethical issues, and rewards of work.

# CAREER & TECHNICAL EDUCATION

## COMPUTER SYSTEMS TECHNOLOGY

*Cybersecurity Fundamentals (6302) – 1 credit*  
(Prerequisites: Offered in Grades 9-12)

Cybersecurity affects every individual, organization, and nation. This course focuses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity.

*Information Technology (IT) Fundamentals (6670) - 1 credit*  
(Prerequisites: Offered in Grades 9-12. Keyboarding course(s) or teacher-approved demonstration and documentation of touch keyboarding skills.)

Information Technology (IT) Fundamentals introduces the essential technical and professional skills required for students to pursue programs leading to professional careers and IT certifications. Students investigate career opportunities and technologies in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media. Students will evaluate the impact of IT on other career clusters. The focus of the IT Fundamentals course is the introduction of skills related to information technology basics, Internet fundamentals, network systems, computer maintenance/upgrading/troubleshooting, computer applications, programming, graphics, Web page design, and interactive media. Students explore ethical issues related to computers and Internet technology and develop teamwork and communication skills that will enhance their employability.

## AUTO TECHNOLOGY

*Automotive Technology I (8506) 2 credits*  
(Prerequisites: Offered in Grade: 10-11; 1 block per day each semester)

Due to recent technological advancements in automobiles, it is crucial that technicians are prepared with state-of-the-art technology and training. This course represents a large sampling of the competencies from National Automotive Technician's Education Foundation's (CNATEF's) Maintenance and Light Repair accredited program. Students are provided instruction in all systems as they prepare for the ASE (Automotive Service Excellence) Student Certification, "the first step in building a career as a service professional in the automotive industry."

*Automotive Technology II (8507) -2 credits (Prerequisites: Automotive Technology I; Offered in Grades 11-12; 2 blocks)*

This course represents the advanced competencies from National Automotive Technician's Education Foundation's (CNATEF's) Maintenance and Light Repair accredited program without redundancy from the prerequisite course. Students are provided instruction in all systems as they prepare for the ASE (Automotive Service Excellence) Student Certification, "the first step in building a career as a service professional in the automotive industry." Successful completion of this course will result in program completion and prepare students to pass the equivalent NATEF student exam and ultimately attain certification.

*Automotive Technology III (8508) – 2 credits (Prerequisites: Automotive Technology II; Offered in Grade 12; 2 blocks)*

This course is available for students who have completed the first two courses of Automotive Technology and attained program-completer status. The tasks for this capstone course represent the middle-tier standards of the National Automotive Technician's Education Foundation's (NATEF's) Automobile Service Technology accredited program. Students are provided instruction in all systems as they prepare for the ASE (Automotive Service Excellence) Student Certification, "the first step in building a career as a service professional in the automotive industry."

*Motorsports Technology I– Fall Semester (8509) –2 credits*  
(Offered at P&HCC—Martinsville) (Prerequisites: Offered in 12th grade. 2 Blocks per day: each semester; interview; Passing score on a placement test administered by Patrick & Henry Community College. Students will receive 3 college credits for MTS 125

Motorsports Technology I provides a foundation in the principles of racecar fabrication and all facets of the racing industry. Technical aspects of the course include skill development in vehicle assembly using specialty tools and welding. Students explore the motorsports technology industry and identify careers in the field.

*Motorsports Technology II– Spring Semester (8510) – 2 credits*  
(Offered at P&HCC—Martinsville) (Prerequisites: Offered in 12th grade. 2 Blocks per day: each semester; interview; passing score on a placement test administered by Patrick & Henry Community College. Students will receive 3 college credits for MTS 126

Motorsports Technology II further develops students' skills in racecar fabrication as they explore the motorsports technology industry. Students gain experience in chassis preparation, vehicle assembly, and engine assembly and disassembly. Additional focus areas include racing protocol and regulatory compliance in the motorsports field.

**\*\*The fall and spring semesters must be taken in sequence to get credit for the class.**

# CAREER & TECHNICAL EDUCATION

## BUILDING TRADES

*Building Trades I (8515)–1 credit*

*(Prerequisite: None; Offered in Grades 9-11)*

Building Trades I introduces students to skills in the four core areas of residential construction: masonry, carpentry, electricity, and plumbing. Students emphasize safety by preparing to earn the OSHA 10 card as they build or repair entire residential structures, using a variety of materials and tools.

*Building Trades II (8516) (Year) –2 credits*

*(Prerequisite: Recommended “C” in Building Trades I; Students must have passed and received their OSHA 10 card from Building Trades I; Offered in Grades 11-12.)*

Building Trades II teaches students advanced skills in masonry, carpentry, electricity, and plumbing. The class prepares students to synthesize these valuable skills to build or repair complete residential structures, using a variety of materials and tools. Upon successful completion of the course, students may qualify to take the NOCTI Fundamentals of Construction exam.

*Electricity I (8533) – 1 credit (Prerequisite: Offered in Grades 10-12)*

Students develop fundamental electrical skills to help them prepare for a career in the installation, operation, maintenance, and repair of residential, commercial, and industrial systems. Students will engage in hands-on activities in a lab setting. They will be introduced to residential wiring of houses and apartments; commercial wiring of retailers, schools, businesses, and hospitals; and industrial wiring of factories. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

*HVACR I (8503) (Year) – 4 credits*

*(Offered at P&HCC – Martinsville)*

*(Prerequisite: Offered in Grade 12; 2 blocks per day; Instructor Interview; passing score on a placement test administered by Patrick & Henry Community College. Students will receive college credits if they pass the course with a “C” or better.)*

Fall Semester—Teaches refrigeration principles and systems, characteristics of refrigerants, temperatures and pressures. Instructional methods will include lecture/discussion, lab projects. Graduates of the HVAC program will have demonstrated mastery of generic and specific residential, commercial and industrial occupational skills relative to the field. Graduates will be prepared for EPA certification.

Spring Semester—Teaches principles of electricity covering fundamentals, devices and components of both DC and AC circuits. Instructional methods include lecture, discussion and class projects.

**\*\*The fall and spring semesters must be taken in sequence to get credit**

## WELDING

*Sheet Metal I, Welding I & II (DE8663, DE8672, DE8673)–4*

*credits (Prerequisites: Offered in Grades 11-12; 2 blocks per day each semester; passing score on a placement test administered by Patrick & Henry Community College. Students will receive a total of 20 college credits for the following courses: WEL 120, WEL 123, WEL 150, WEL 160, WEL 161, WEL 164, SDV 100)*

Welding is required by a wide variety of industries—anywhere fusible materials and high heat are needed to manufacture, repair, or alter tools and products. Professional welders are in high demand and can earn accordingly. Students in Welding I are taught to use manual welding, cutting, and electrical arc welding processes to fabricate and join metal parts according to diagrams, blueprints, and specifications. Students will also learn all safety-related practices and techniques, including earning the OSHA 10 card.

Students may work with materials that are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, or stamped. Instruction includes basic planning, manufacturing, assembling, testing, and repairing of mechanisms, machines, and structures.

This course teaches advanced welding students how to fine-tune their craft and to perform welds in various positions, using multiple welding processes. Students prepare to pass relevant industry certifications.

Welding is required by a wide variety of industries—anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Professional welders are in high-demand and can earn accordingly.

Students will learn fundamental welding skills including Blueprint Reading, Metallurgy, and hands on welding utilizing oxyacetylene, ARC, Flux Core, and MIG welding. Students are required to commit 2 blocks to this program for both fall and spring semesters and priority is for students who are seniors. Students who successfully complete all classes will earn a career studies certificate in Welding. Students will also have the opportunity to earn a Career Studies Certificate in Welding from Patrick & Henry Community College.

**\*\*The fall and spring semesters must be taken in sequence to get credit for the class.**

# CAREER & TECHNICAL EDUCATION

## **Applied Mechatronics Career Studies Certificate (DE8554 & DE8555)**

The focus of this program is to provide highly skilled industrial technicians for a regional workforce. Students will learn about computerized systems, automation, sensors, transducers, automated controls, programmable logic controls, pneumatics, hydraulics, and controls. Students who complete the program will be prepared to sit for the Siemens Level 1 Mechatronics certification.

This program will be a year-long program, two blocks each semester. Transportation will be provided by the school. Limited to 12 students.

### *IND 243 - Principles and Applications of Mechatronics (3 college credits)*

Introduces terminology and principles related to Mechatronic system design and application. Integrates concepts of electrical/electronic, mechanical and computer technologies in the development, setup, operation and troubleshooting of automated products and systems. Covers breakdown of various automated manufacturing operations with emphasis on system planning, development and troubleshooting processes.

### *MEC 140 - Introduction to Mechatronics (3 college credits)*

Presents foundational concepts in mechatronics including analog and digital electronics, sensors, actuators, microprocessors, and microprocessor interfacing to electro-mechanical systems. Surveys components and measurement equipment used in the design, installation, and repair of mechatronic equipment and circuits.

### *MEC 155 – Mechanisms (3 college credits)*

Studies the purpose and actions of CAMS, gear trains, levers, and other mechanical devices used to transmit control. Focuses on motions, linkages, velocities, and acceleration of points within a link mechanism, layout method for designing cams and gear grain. Requires preparation of weekly laboratory reports.

### *MEC 165 - Applied Hydraulics, Pneumatics and Hydrostatics (3 college credits)*

Teaches fluid power system design, operation, testing, maintenance and repair. Includes reservoirs, pump connecting valves, cylinders, pressure regulating valves, flow control valves, hydraulic motors, and introduction to basic hydrostatic hydraulic systems.

### *ETR 156 - Digital Circuits and Microprocessor Fundamentals (3 college credits)*

Introduces characteristics and applications of digital logic elements including gates, counters, registers, displays and pulse generators. Applies microprocessor theory and applications, including internal architecture of the micro- processor, interfacing, input/output, and memory.

### *SDV 100 - College Success Skills (1 college credit)*

Assists students in transition to colleges. Provides overviews of college policies, procedures, and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Strongly recommended for beginning students.



# CAREER & TECHNICAL EDUCATION

## TRADE AND INDUSTRIAL EDUCATION CO-OP:

*Co-op Trade and Industrial Education (C-Semester; Y-Yearlong; Offered in Grades 11-12)*

A Co-op student is required to work a minimum of 396 hours each semester. On-the-job training will take place during school, after school, and on weekends both first and second semester. Co-op employees received training, money, and school credit for completing both the classwork and on-the-job training. The student is responsible for obtaining a school approved position and will need to fill out a Co-op education application. The student is also responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by Co-op coordinator or CTE director prior to the end of the school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program if any violations of the agreement occur and placed in a class based on availability. Students who register for Trade and Industrial Education Co-op must be enrolled in one of the following during the school year: Auto Technology I (8506); Auto Technology II (8507); Automotive Technology III (8508); Motorsports Technology I (8509); Motorsports Technology II (8510); Building Trades II (8516); HVACR (8503); Technical Drawing and Design (8435); Engineering Drawing and Design (8436); Drafting I (8530); Drafting II (8532); Drafting III (8532); Information Technology (IT) Fundamentals (6670); Computer Systems Technology (8622); Computer Systems Technology (8623).

## COSMETOLOGY

*Cosmetology I (8527) 2 credits*

*(Prerequisites: 1 Block per day each semester; Offered in Grades 10-11)*

In this introductory course, students study hair, skin, and nails and their related care. Students are grounded in theory as they prepare to practice procedures in a clinical lab setting or classroom, using manikins for manipulative skill practice. The first-year course emphasizes personal safety, professionalism, and sanitation and disinfection of equipment and facilities. Students develop skills in shampooing and conditioning hair, as well as styling and cutting hair. They are introduced to chemical texture services and develop skills in manicure and pedicure procedures. Cosmetology students must satisfy a minimum of 840 hours of instruction in a two-year coherent sequence of courses to be eligible to take the Cosmetology licensing examination.

*Cosmetology II (8528) – 2 credits (2 blocks per day first semester)*  
*(Prerequisites: Offered in Grades 11-12; Cosmetology I).*

In this continuing course, students build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to permanent waves, relaxers, lightening, and coloring hair. In addition, students learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. Students will be introduced to a business management unit with a focus on managing the salon. Cosmetology students must satisfy a minimum of 840 hours of instruction in a two-year coherent sequence of courses to be eligible to take the Cosmetology licensing examination.

*Cosmetology III (8529) 2 credits*

*Prerequisites: Offered in Grades 11 and 12 Cosmetology I & Cosmetology II (2 blocks per day in Spring semester)*

In this advanced course, students build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to chemical texture services and advanced hair coloring techniques. They also develop artistic skills with wigs and hair additions. In addition, students learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. An advanced business management unit focuses on managing the salon. Competency completion prepares the student for the Virginia State Licensing Exam. Students can combine classroom instruction and supervised on-the-job training in an approved position or internship with continuing supervision throughout the school year. Cosmetology students must satisfy a minimum of 840 hours of instruction in a two-year coherent sequence of courses to be eligible to take the Cosmetology licensing examination.

## COSMETOLOGY CO-OP:

*Co-op Cosmetology II - 8528: (C-Semester; Y-Yearlong;*

*Offered in Grades 11-12) Must be enrolled in Cosmetology II first semester and Cosmetology III second semester)*

The State Board of Cosmetology has approved and endorsed the “school to work” program for Cosmetology and Nail Technology programs. This allows students to work as trainees in salons under strict supervision of a licensed professional. The Virginia State Board of Cosmetology’s rules and regulations and Patrick County High School’s Co-op agreement will govern the students work experience. Students participating in this program must maintain a “C” average in Cosmetology II and are required to sign a contract of agreement stating the responsibilities and expectation of the student. A Co-op student is required to work a minimum of 396 hours each semester. The student is responsible for obtaining a school approved position and will need to fill out a Co-op education application. The student is also responsible for maintaining monthly hours and wage logs and must submit them to the Co-op coordinator. The job must be approved by Co-op coordinator or CTE director prior to the end of the school year preceding enrollment. The student must meet with the Co-op coordinator before any change in employment can occur during the school year. A student will be removed from the program if any violations of the agreement occur and placed in a class based on availability. Students who register for Career Connections Co-op must be enrolled in the following during the school year: Cosmetology II (8528).

## Patrick Henry Community College

Patrick & Henry Community College offers several career specific programs that include IDEA Academy, Motorsports, Precision Machining, and Public Safety courses (Law Enforcement). Students interested in these courses must submit a written request to the principal who will work collaboratively with P&HCC instructors to develop a student schedule incorporating high school/P&HCC course offerings. The courses offered at P&HCC will be based at the main campus, located in Martinsville, VA.



# D-SQUARED

## D<sup>2</sup> or D-Squared

D-Squared is a partnership between Patrick & Henry Community College and Patrick County Public Schools. Students admitted to the D-Squared program will earn an Associate's Degree from Patrick & Henry Community College by taking courses during their junior and senior years of high school. The Advanced Placement curriculum will be taught in several identified courses offered at PCHS. **Upon completion of an advanced placement class, students are eligible to take the Advanced Placement exam.**

All courses will be taught at PCHS and P&HCC Stuart site. It is required that students complete their third year of world language and Trigonometry by the end of their sophomore year. It is important for students and parents to understand that completing this program may allow students to enter college as a Junior and could be faced with the demands of the associated Junior level curriculum.

Students interested in enrolling should contact the Director of Student Services the spring of their sophomore year for an application. Admission to the D-Squared Program is based upon the following criteria: GPA, SOL scores, teacher recommendations and acceptance to Patrick & Henry Community College. There must be a minimum of fifteen students enrolled in the cohort for the D-Squared to be offered.

## Sample Junior Course Descriptions

### Fall:

*Introduction to Speech Communication – 1 high school credit (DE1300) (CST 110: 3 college credits)*

Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level

*College Success Skills - 1/2 high school credit (DE8475) (SDV 100 - 1 college credit)*

Assists students in transition to colleges. Provides overviews of college policies, procedures, and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Strongly recommended for beginning students.

*Intro to Computer Applications and Concepts (DE) – 1 high school credit (DE8498) (ITE 115 – 3 college credits)*

Covers computer concepts and internet skills, and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills.

*AP/Honors English 11 - 1 high school credit (1150H) (ENG 111, 246: 6 college credits)*

AP/Honors English 11 incorporates the requirements for the regular English 11 classes in addition to extensive writing assignments and novel studies, as well as, summer reading assignments. This course introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics; develop and support ideas; investigate; evaluate and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one research project. SAT preparation will be included as a unit of study.

This course offers advanced language studies and provides opportunities to practice a variety of rhetorical modes through assignment of frequent essays. Students read certain works of British, American, and world literature, and complete follow-up assignments requiring application of advanced techniques of literary analysis. A documented research paper and an oral presentation are required.

*Honors Math Analysis/Pre-Calculus—1 high school credit (3162H) (MTH 167: 5 college credits)*

Trigonometric and circular functions are introduced in this course. Evaluation of trigonometric functions, use of basic formulas, and laws of cosines and sines are presented. Emphasis is placed on the applications of trigonometry, solutions of trigonometric equations, applications of triangles and vectors, and polar graphing. Advanced topics in algebra, analytical geometry, polynomial functions, and sequences are also included.

### 1 Student Selected Elective

### Spring:

*Nutrition and Human Development – 1 high school credit (DE8390) (HLT 230 – 3 college credits)*

Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control and the nutritional needs of an individual.

*Ethics – 1 high school credit (DE220) (PHI 220 – 3 college credits)*

Provides a systematic study of representative ethical systems.

*AP/Honors US/VA History—1 high school credit (2360H) (HIS 121-122: 6 college credits)*

The focus of this course is on the major themes, events, and ideas that shaped the history of the United States. Students probe, in depth, the dynamics of American political and diplomatic decision-making, national and sectional interests, and a variety of personalities and social movements related to the development of the United States. Distinguishing characteristics of cultures are examined through literature, art, architecture, music, religion, philosophy and geography. Students will be required to write thoughtful and factually supported papers on historical topics.

# D-SQUARED

*Spanish IV Honors—1 high school credit (5540H)*  
(SPA 101-102: 8 college credits)

Spanish IV is a continuous building of vocabulary and grammatical structures through conversations, readings, and writings in the language. Students are expected to make acceptable and exclusive use of Spanish in classroom communication.

*Advanced Chemistry – 1 high school credit (4410A)*

In Advanced Chemistry, concepts introduced in Chemistry are extended and higher levels of subject matter and scientific investigations are explored. Laboratory techniques are refined and expanded with emphasis placed on the study of descriptive chemistry and chemical principles through the use of chemical models. Importance is placed on the student's development of a strong problem-solving orientation to chemistry.

## Sample Senior Course Descriptions

### Fall:

*Supervised Study in Transfer Programs - 1/2 high school credit (0130DE) (SDV 199: 1 college credit)*

Provides experience in preparation of application of admission to senior institutions, exploring degrees and programs of study at the senior institutions, assessment of core competencies, and assistance with other needs such as housing, study habits, and financial aid when transitioning from the community college to the senior institution. Assists students in understanding differences in community college life and academics and the senior institution.

*AP/Honors English 12—1 high school credit (1160H)*  
(ENG 112, 245: 6 college credits)

This course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.

*Calculus Honors – 1 high school credit (02121H)*  
(MTH 263: 4 college credits)

Laboratory calculus provides a student with an opportunity to learn the classical calculus curriculum in an innovative technological manner and to apply all previous mathematics concepts and skills. The course is based on real life applications including, but not limited to, differential calculus of one variable including the theory of limits, derivatives, differentials, anti-derivatives and applications to algebraic and transcendental functions.

*2 Student Selected Electives*

### Spring:

*Honors/AP US/VA Government—1 high school credit (2440H)*  
(2440AP) (PLS 135-136: 6 college credits)

AP/Honors US/VA Government provides students with challenging assignments in reading, analysis, synthesis, writing, and speaking. Students examine the principles and practices of government, particularly of American government, at national, state, and local levels. The framework for this course includes units on the development of the theories of government, law and the justice system, and current domestic and foreign policy. Students will be required to differentiate among the operations of each of the levels of the United States Government.

*Spanish V H (55507) —1 high school credit (5550H) (SPA 201-202—8 college semester hours)*

Spanish V is designed to increase the student's ability to comprehend and to use formal and informal spoken Spanish. Students are required to use Spanish exclusively in classroom communication. Course content includes formal and informal oral presentations, advanced grammar, short stories, Hispanic civilization and culture, and the study of selected Spanish literary classics. Practice for the Advanced Placement Spanish Language Exam is given at various times during the course.

*Biology Honors— 1 high school credit (4320H) (BIO 101-102:8 college credits)*  
(Prerequisite: Biology I, Chemistry)

The course is a college-level introduction focusing on the fundamental characteristics of living matter from the molecular level to the ecological community level. The content introduces the diversity of living organisms, their structure, function and evolution. Topics covered include major concepts in molecular and cellular biology, microbiology, biochemistry, genetics, botany, physiology and ecology.

*1 Student Selected Elective*

# D-SQUARED

Enrollment in these classes is contingent upon a student's acceptance in the course by the college, and availability of credentialed instructors. Fees are paid in accordance with school procedures. The total cost per credit hour at P&HCC is \$157.33. This cost is covered by Patrick County Public Schools.

## **Sample Schedule Only:**

### **Junior Year Fall**

#### 1<sup>st</sup> Block

M,W Intro to Computer Applications and Concepts ITE 115	3
T, Th Intro to Speech Communications CST 110	3
F College Success Skills SDV 100	1

2nd Block English 11 Honors ENG 111, 246 6

3rd Block Math Analysis/Pre-Calculus MTH 167 5

4th Block Student Selected Elective

Total Number of Dual Enrollment Credits 18

### **Spring**

#### 1st Block

M,W, F Nutrition and Human Development HLT 230	3
T, Th Ethics PHI 220	3

2nd Block VA & US History Honors HST 121-122 6

3rd Block Spanish IV Honors SPA 101-102 8

4th Block Advanced Chemistry

Total Number of Dual Enrollment Credits 20

### **Senior Year Fall**

#### 1st Block Student Selected Elective

Transitioning to a 4-Year Institution SDV 199	1
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2nd Block English 12 Honors ENG 112, 245 6

3rd Block Student Selected Elective

4th Block Calculus Honors MTH 263 4

Total Number of Dual Enrollment Credits 11

### **Spring**

#### 1st Block Student Selected Elective

2nd Block VA/US Government Honors PLS 135-136 6

3rd Block Spanish V Honors SPA 201-202 8

4th Block Biology Honors BIO 101-102 8

Total Number of Dual Enrollment Credits 22

# **Family Educational Rights and Privacy Act (FERPA)**

## **Notice for Directory Information**

The *Family Educational Rights and Privacy Act (FERPA)*, a Federal law, requires that Patrick County Public Schools, with certain exceptions, obtain a parent's or legal guardian's written consent prior to the disclosure of personally identifiable information from their child's education records. However, Patrick County Public Schools may disclose appropriately designated "directory information" without written consent, unless parents or guardians have advised the school division to the contrary in accordance with procedures. The primary purpose of directory information is to allow Patrick County Public Schools to include this type of information from students' education records in certain school publications. Examples include:

- A playbill, showing your student's role in a drama production
- The annual yearbook
- Honor roll or other recognition lists
- Graduation programs
- Sports activity sheets, such as for wrestling, showing weight and height of team members

Directory information, which is information that is generally not considered harmful or an invasion of privacy if released, can also be disclosed to outside organizations without a parent's prior written consent. Outside organizations include, but are not limited to, companies that manufacture class rings or publish yearbooks. In addition, two federal laws require local educational agencies (LEAs) receiving assistance under the *Elementary and Secondary Education Act of 1965 (ESEA)* to provide military recruiters, upon request, with three directory information categories – names, addresses and telephone listings – unless parents have advised Patrick County Public Schools that they do not want their student's information disclosed without their prior written consent.<sup>1</sup> If parents do not want Patrick County Public Schools to disclose directory information from their child's education records without their prior written consent, they must notify the school division in writing. Patrick County Public Schools has designated the following information as directory information:

- Student's name
- Address
- Telephone listing

<sup>1</sup>These laws are: Section 9528 of the ESEA (20 U.S.C. 7908) as amended by the *No Child Left Behind Act of 2001* (P.L. 107-110), the education bill, and 10 U.S.C. 503, as amended by section 544, the *National Defense Authorization Act for Fiscal Year 2002* (P.L. 107-107), the legislation that provides funding for the Nation's armed forces.

## **AHERA Notification Concerning Asbestos Materials in School Buildings**

All Patrick County Public Schools have been inspected for presence of asbestos containing materials. The results of these inspections have been compiled into a management plan for each school. These management plans are available in the main office of each school for inspection. Any individual who wishes may review these plans. Each six months, a specified maintenance technician inspects the building and assesses any building materials still containing asbestos. The technician verifies that the materials have not been damaged, deteriorated, or become friable by any other means causing a hazard to the occupants of the building. Should any situation be detected, it would be dealt with quickly by a trained and licensed abatement professional. Additionally, each three years, an independent contractor, who is trained and licensed in asbestos inspections and abatement, is employed to inspect each school to ensure the asbestos containment and that the removal plans are being followed.