2018-2019

Program of Studies

Grades 6-12

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NORTHUMBERLAND COUNTY PUBLIC SCHOOLS PERSONNEL

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Mrs. Dana O'Bier	District 1
Mrs. Mary Hooper	District 2
Mr. Gerald Howard	District 3

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Mr. Ronald Jett	Chairman, District 5
Mr. Richard Haynie	Vice-Chairman, District 2
Mr. Joseph Self	District 1
Mr. James Long	District 3
Mr. Thomas Tomlin	District 4

County Administrator

Mr. E. Luttrell Tadlock

Northumberland County Schools Administrative Departments

Dr. Holly Wargo, Superintendent
Mrs. Amy Lamb, Director of instruction
Mrs. Carol Badenoch, School Board Clerk/Human Resources Specialist
Mr. Adam Letizia, Director of Special Student Services
Mrs. Sophronia Smith, Director of Federal Programs & School Improvement
Mrs. Shauna McCranie, Coordinator of Gifted Services

Dr. Travis Burns, NHS Principal
Mrs. Martha Hicks, NHS Assistant Principal
Mrs. Javornda Ashton, NMS Principal

Mr. Patrick Simmons, NMS Assistant Principal
Mrs. Stephanie Baker, NES Principal
Mr. Lance Reynolds, NES Assistant Principal

Finance
Ms. Donna Booth, Director of Finance
Mrs. Stacey Beynon, Finance Manager
Mrs. Valerie Parker, NES Finance
Ms. Kristy Self, NMS Finance
Mrs. Teresa VanLandingham, NHS Finance

Maintenance
Mr. Cris Kallenberger, Director of Maintenance
Mr. Jason Smith, Maintenance

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Mrs. Saunee Hamlett, Director of Food Service

Counseling & Support
Ms. Haley Kitchen, NHS Counselor
Ms. Sarah Henry, NHS Counselor
Mrs. Krista Sisk, NMS Counselor
Mrs. Danielle Phelps, NES/NMS Counselor
Mrs. Lynne Haynie, NES Counselor

Assessment & Data Collection
Mrs. Debbie Devivi, Director of Testing and Assessment

Health Services
Mrs. Susan O'Bier, NES Nurse
Mrs. Lori Rice, NMS/NHS Nurse
Mrs. Rachel Edwards, Emergency Medical Technician

Technology
Mr. Bob Gilbert, Director of Technology
Mr. Mercer Basye, PC Technician
Mr. Ry-Shan Conaway, PC Technician
Mrs. Rachel Hall, Instructional Technology Resource Teacher (ITRT)

Transportation
Mr. Reggie Taylor, Director of Transportation

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Mrs. Liz Hood, NHS/NMS Library Media Specialist
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VIRGINIA BOARD OF EDUCATION

Vision

The vision of the Board of Education and Superintendent of Public Instruction, in cooperation with their partners, is to create an excellent statewide system of public education that derives strength from our diversity and that ensures equity of opportunity for each student in a safe and healthy learning environment that prepares all students to be capable, responsible, and self-reliant citizens in the global society.

Mission

The mission of the Board of Education and Superintendent of Public Instruction, in cooperation with their partners, is to develop policies and provide leadership that improve student achievement and prepare students to succeed in postsecondary education and the workplace, and to become engaged and enlightened citizens.

Duties

The main duties of the Board of Education include:

- Setting statewide curriculum standards;
- Establishing high school graduation requirements;
- Determining qualifications for classroom teachers, principals, and other education personnel;
- Establishing state testing and assessment programs;
- Establishing standards for accreditation of local school divisions and preparation programs for teachers and administrators;
- Implementing the Every Student Succeeds Act (ESSA) and administering federal assistance programs; and
- Developing rules and regulations for the administration of state programs.

The Board of Education consists of nine members appointed by the Governor, subject to confirmation by the General Assembly. Members are appointed to serve a term of four years. No member shall be appointed to more than two consecutive four-year terms.

Bylaws

In accordance with § 22.1-16 of the *Code of Virginia*, the board has adopted the Bylaws of the Virginia Board of Education (PDF) for its own governance to carry out its powers and duties. The bylaws were last amended February 25, 2016.

Priorities & Goals for Public Education in Virginia: 2018-2023

The Board of Education's priorities and goals are the foundation for providing high-quality educational opportunities for all public school students in Virginia. In identifying these priorities and goals, the Board reached out to families, students, educators, administrators, community members, business leaders, higher education institutions, and the public through hundreds of comments provided during Board public hearings, presentations, and through correspondence. To ensure that all children in the Commonwealth have access to a high-quality education that prepares them for successful, healthy, and fulfilling lives, the Board developed the following priorities as outlined in the comprehensive plan:

- Priority 1: Provide high-quality, effective learning environments for all students
- Priority 2: Advance policies that increase the number of candidates entering the teaching profession and encourage and support the recruitment, development, and retention of well-prepared and skilled teachers and school leaders
- Priority 3: Ensure successful implementation of the *Profile of a Virginia Graduate* and the accountability system for school quality as embodied in the revisions to the *Standards of Accreditation*

The Board will continue to meet all statutory and regulatory requirements and work to engage all stakeholders in policy decisions and actions related to the Board's priorities and goals.

PLANNING FOR A CAREER AND EDUCATION AFTER HIGH SCHOOL GRADUATION

How can I help my student prepare?
You and your student should pay careful attention to the personal learning plan and course of study. You will need to set personal goals that will focus your student's middle and high school years. These goals will be outlined in a career and educational plan developed with the assistance of a school counselor. Topics to consider when making the plan:

- Your student's abilities and interests/likes and dislikes;
- The curriculum in the career area of your student's interest (including dual enrollment courses, advanced placement courses, and work related options);

- Cost, transportation and any extracurricular activities (take special consideration for off-campus and dual enrollment classes).

The State Board of Education's Regulations Establishing Standards for Accrediting Public Schools in Virginia (SOA), includes provisions for each middle and high school student to have a personal learning plan and course of study that aligns with the student's academic and career goals.

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

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

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

THE 16 CAREER CLUSTERS

According to the VDOE, "Career Clusters help students investigate careers and design their courses of study to advance their career goals." Virginia uses the national structure of career clusters, career pathways and sample career specialties or occupations.

A Career Cluster is a group of occupations and industries based on similarities. "Within each career cluster, there are multiple career pathways that represent a common set of skills and knowledge, both academic and technical, necessary to pursue a full range of career opportunities within that pathway – ranging from entry level to management, including technical and professional career specialties" (VDOE, 2014). Based on the skill sets taught, CTE courses are aligned with one or more career clusters and pathways (VDOE, 2014).

Agriculture, Food & Natural Resources

- Agribusiness Systems
- Animal Systems
- Environmental Service Systems
- Food Products & Processing Systems
- Natural Resources Systems
- Plant Systems
- Power, Structural & Technical Systems Architecture & Construction

Architecture & Construction

- Construction
- Design/Pre-Construction

Arts, A/V Technology & Communications

- A/V Technology & Film

- Journalism & Broadcasting
- Performing Arts
- Printing Technology
- Telecommunications
- Visual Arts

Business Management & Administration

- Administrative Support
- Business Information Management
- General Management
- Human Resources Management
- Operations Management

Education & Training

- Administration & Administrative Support
- Professional Support Services
- Teaching/Training

Finance

- Accounting
- Banking Services
- Business Finance
- Insurance
- Securities & Investments

Government & Public Administration

- Foreign Service
- Governance
- National Security
- Planning
- Public Management & Administration
- Regulation
- Revenue & Taxation

Health Sciences

- Biotechnology Research & Development
- Diagnostic Services
- Health Informatics
- Support Services
- Therapeutic Services

Hospitality & Tourism

- Lodging
- Recreation, Amusements & Attractions
- Restaurants & Food/Beverage Services
- Travel & Tourism

Human Services

- Consumer Services
- Counseling & Mental Health Services
- Early Childhood Development & Services
- Family & Community Services
- Personal Care Services

Information Technology

- Information Support & Services
- Programming & Software Development
- Web & Digital Communications

Law, Public Safety, Corrections & Security

- Correction Services
- Emergency & Fire Management Services
- Law Enforcement Services
- Legal Services
- Security & Protective Services

Manufacturing

- Health, Safety & Environmental Assurance
- Logistics & Inventory Control
- Maintenance, Installation & Repair
- Manufacturing Production Process Development
- Production
- Quality Assurance

Marketing

- Marketing Communications
- Marketing Management
- Marketing Research
- Merchandising
- Professional Sales

Science, Technology, Engineering & Mathematics

- Engineering & Technology
- Science & Mathematics

Transportation, Distribution & Logistics

- Facility & Mobile Equipment Maintenance
- Health, Safety & Environmental Management
- Logistics Planning & Management Services
- Sales & Service
- Transportation Operations
- Transportation Systems/Infrastructure Planning, Management & Regulation
- Warehousing & Distribution Center Operations

YOUR STUDENT'S PROGRAM OF STUDY: AN EXAMPLE

You should work with your child to make a plan for middle school and high school course selections.

Middle School Program Example

Grade 6	*Grade 7*	*Grade 8*
English / Language Arts	English / Language Arts	English / Language Arts
U.S. History II	Civics and Economics	World Geography
Mathematics	Mathematics	Mathematics
Intro. to Earth and Environmental Sciences	Life Science	Physical Science
Health/Physical Education	Health/Physical Education	Health/Physical Education
** Elective	** Elective	** Elective

** Electives are described under individual subject areas and, depending on the elective/grade level, may include quarter, semester, and yearlong courses. Middle School electives include: Art, Chorus, Band, Keyboarding, Digital Applications, Life Planning, and Conditioning.

In planning your student's high school program of studies, you will need to be aware of a full range of core academic courses and plan for a rigorous academic level of study. If you consider high school courses as they relate to the 16 Career Clusters, then you may focus on career planning and post-secondary education goals. Your student's school counselor and career counselor will help you to take interest inventories and ability inventories that may guide your student's academic and career plans.

High School Program Example

GRADE 9	**GRADE 10**	**GRADE 11**	**GRADE 12**
English 9	English 10	English 11	English 12
World History I	World History II	U.S. History	U. S. Government
Earth Science	Biology	Chemistry	Earth Science II: Oceanography
Algebra I	Geometry	Algebra II	Statistics
Health/PE	Health/PE	^Economics/Personal Finance	^Economics/Personal Finance
*CTE Course	*CTE Course	*CTE Course	*CTE Course
*Elective	*Elective	*Elective	*Elective
*Elective	*Elective	*Elective	*Elective

^May be taken in Junior or Senior year

See Course Descriptions for CTE Courses

** Graduation Requirements include a specified number of electives for each type of diploma. Consult a school counselor to make sure the schedule fulfills elective requirements for graduation. High school elective courses are available in a number of facilities/venues, including the Northern Neck Technical Center Governor's STEM Academy, in Warsaw. Read sections in this booklet for more information on the electives at each site.

ACADEMIC AND CAREER PLANS

The Regulations Establishing Standards for Accrediting Public Schools in Virginia (SOA) includes provisions for each middle and high school student to have a personal learning plan and course of study that aligns with the student's academic and career goals. Refer to SOA: 8 VAC 20-131-140, page 33. College and career preparation programs and opportunities for postsecondary credit.

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

A program of study for high school graduation and a postsecondary career pathway based on the student's academic and career interests.

A review and update, if necessary, before the student enters the ninth and eleventh grades.

The signatures of the student, student's parent or guardian and school official(s) designated by the principal.

Your Student's Academic and Career Plan

NAME:_____Date:_____YOUR DIPLOMA TYPE:_____

Circle the Career Clusters That Interest You			
Agriculture, Food & Natural Resources	Education & Training	Hospitality & Tourism	Manufacturing
Architecture & Construction	Finance	Human Services	Marketing, Sales & Service
Arts, A/V Technology & Communications	Government & Public Administration	Information Technology	Science Technology, Engineering, & Mathematics
Business Management & Administration	Health Science	Public Safety, Corrections & Security	Transportation, Distribution & Logistics

Your Student's Middle School Program

	Grade 6	Grade 7	Grade 8
Course 1			
Course 2			
Course 3			
Course 4			
Course 5			
Course 6			
Course 7			

Your Student's High School Program

	Grade 9	Grade 10	Grade 11	Grade 12
Course 1				
Course 2				
Course 3				
Course 4				
Course 5				
Course 6				
Course 7				
Course 8				

** Graduation Requirements include a specified number of electives for each type of diploma. Consult a school counselor to make sure the schedule fulfills elective requirements for graduation. High school elective courses are available in a number of facilities/venues, including The Northern Neck Technical Center Governor's STEM Academy. Refer to the course descriptions in this Program of Studies.

Entering Ninth-Grade Class of 2016-2017 and Beyond

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

DIPLOMA OPTIONS FOR STUDENTS

Standard Diploma

For students entering the ninth grade for the first time in 2018-2019 and beyond

To graduate with a Standard Diploma, a student must earn at least 22 standard units of credit by passing required courses and electives, and earn at least five verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

Beginning with students entering ninth grade for the first time in 2018-2019, a student must also:

- 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; and
- 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.

The school counselor can advise on available courses to fulfill the requirements for a Standard Diploma.

Standard Diploma Course Requirements (8 VAC 20-131-51) for Students Entering Ninth Grade for the First Time in 2018-2019 and Beyond

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	N/A
Mathematics	3	1	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.
Laboratory Science	3	1	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. 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.
History and Social Sciences	3	1	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. 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.
Health and Physical Education	2	0	N/A
World Language, Fine Arts or Career and Technical Education	2	0	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.
Economics	1	0	N/A

& Personal Finance			
Electives	4	0	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.
Total	**22**	**5**	N/A

Additional Requirements for Graduation

- **Advanced Placement, Honors, or International Baccalaureate Course or Career and Technical Education Credential** - 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.
- **Virtual Course** - 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.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)** - 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.
- **Demonstration of the five Cs** - 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.

For students entering the ninth grade for the first time in 2011-2012 through 2017-2018

To graduate with a Standard Diploma, a student must earn at least 22 standard units of credit by passing required courses and electives, and earn at least six verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.
Beginning with students entering ninth grade for the first time in 2013-2014, a student must also:

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

Beginning with students entering ninth grade for the first time in 2016-2017, a student must also:

- 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.

The school counselor can advise on available courses to fulfill the requirements for a Standard Diploma.

Standard Diploma Course Requirements (8 VAC 20-131-51) for Students Entering Ninth Grade for the First Time in 2011-2012 through 2017-2018

Discipline Area	Standard Credits	Verified Credits	Specifications
English	4	2	N/A
Mathematics	3	1	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 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.
Laboratory Science	3	1	Courses completed to satisfy this requirement shall include course selections 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. 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. 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 acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.
History & Social Sciences	3	1	Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The board shall approve courses to

			satisfy this requirement. 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 acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.
Health & Physical Education	2	0	
World Language, Fine Arts or Career and Technical Education	2	0	Pursuant to § 22.1-253.13:4 of the Code of Virginia, 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 education course credit.
Economics and Personal Finance	1	0	
Electives	4	0	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.
Student Selected Test	0	1	A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the board in8VAC20-131-110.
Career and Technical Education Credential	0	0	Students shall earn a career and technical education credential approved by the Board of Education, 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.
Total	22	6	

Additional Requirements for Graduation

- **For students entering the ninth-grade class for the first time in 2013-2014 and beyond:** Students shall successfully complete one virtual course, which may be a noncredit-bearing course or a required or elective credit-bearing course that is offered online.
- **For students entering the ninth-grade class for the first time in 2016-2017 and beyond:** Students shall 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. Students with an Individualized Education Program (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.

Advanced Studies Diploma: Minimum Course & Credit Requirements

For students entering the ninth grade for the first time in 2018-2019 and beyond

To graduate with an Advanced Studies Diploma for students entering the ninth grade for the first time in 2018-2019 and beyond, a student must earn at least 26 standard units of credit and at least five verified units of credit:

Beginning with students entering ninth grade for the first time in 2018-2019, a student must also:

Advanced Studies Diploma Course Requirements (8 VAC 20-131-51) for Students Entering the Ninth Grade for the First Time in 2018-2019 and Beyond

Subject Area	Standard Credits	Verified Credits	Specifications
English	4	2	N/A
Mathematics	4	1	Courses completed to satisfy this requirement shall include at least three different course selections from among: algebra I, geometry, algebra II, or other mathematics courses above the level of algebra II. The board 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.
Laboratory Science	4	1	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.
History and	4	1	Courses completed to satisfy this requirement shall include Virginia

Social Sciences			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.
World Language	3	0	Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.
Health and Physical Education	2	0	N/A
Fine Arts or Career and Technical Ed	1	0	Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical credit.
Economics & Personal Finance	1	0	N/A
Electives	3	0	Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.
Total Credits	**26**	**5**	N/A

- 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; and
- 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.

Please note: Your school counselor can tell you which courses are offered by your school to fulfill the requirements for an Advanced Studies Diploma.

Additional Requirements for Graduation

- **Advanced Placement, Honors, or International Baccalaureate Course or Career and Technical Education Credential** - 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.

- **Virtual Course** - 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.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)** - 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.
- **Demonstration of the five Cs** - 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.

For students entering the ninth grade for the first time in 2011-2012 through 2017-2018

To graduate with an Advanced Studies Diploma, a student must earn at least 26 standard units of credit and at least nine verified units of credit:

Beginning with students entering ninth grade for the first time in 2013-2014, a student must also:

- Successfully complete one virtual course, which may be non-credit bearing, to graduate with an Advanced Studies Diploma.

Beginning with students entering ninth grade for the first time in 2016-2017, a student must also:

- Be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation.

Please note: Your school counselor can tell you which courses are offered by your school to fulfill the requirements for an Advanced Studies Diploma.

Advanced Studies Diploma Course Requirements (8 VAC 20-131-51) for Students Entering the Ninth Grade for the First Time in 2011-2012 through 2017-2018

Discipline Area	Standard Credits	Verified Credits	Specifications
English	4	2	N/A
Mathematics	4	2	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.
Laboratory Science	4	2	Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The board shall approve 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.
History & Social Sciences	4	2	Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement.
World Language	3	0	Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.
Health & Physical Education	2	0	N/A
Fine Arts or Career & Technical Education	1	0	Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical education course credit.
Economics and Personal Finance	1	0	N/A
Electives	3	0	N/A
Student Selected Test	0	1	A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas as prescribed by the board in 8VAC20-131-110.
Total	**26**	**9**	N/A

Additional Requirements for Graduation

- **Virtual Learning** - Students shall successfully complete one virtual course, which may be a noncredit-bearing course, or may be a course required to earn this diploma that is offered online.
- **Training in emergency first aid, cardiopulmonary resuscitation (CPR), and the use of automated external defibrillators (AED)** - Beginning with first-time ninth-grade students in the 2016–2017 school year, students shall 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. 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.

Applied Studies Diploma

As of July 1, 2015, state legislation eliminated the term "Special Diploma." In lieu of this language, the term "Applied Studies Diploma" will be used. This diploma is available to students with disabilities who complete the requirements of their Individualized Education Program (IEP) and who do not meet the requirements of for other diplomas.

General Achievement Adult High School Diploma (GAAHSD) Program

The General Achievement Adult High School Diploma (GAAHSD) Program is intended to provide a diploma option for individuals who are at least 18 years of age, not enrolled in public education, and not subject to the compulsory attendance requirements of §22.1-254 of the *Code of Virginia*.

Requirements for earning the GAAHSD include prescribed standard units of credit; a passing score on a high school equivalency examination approved by the Virginia Board of Education; and the attainment of a Board-approved career and technical education credential, such as the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia Workplace Readiness Skills Assessment. Standard credits required for the GAAHSD may be earned in a variety of educational settings, including public school; community college or other postsecondary institution; adult high school program; or approved correspondence, distance education, or online courses.

General Educational Development Certificates (GED)

High School Equivalency (HSE) Testing

All reference to GED® in the *Code of Virginia* has been changed to a high school equivalency examination approved by the Virginia Board of Education, effective January 1, 2014. The HSE testing format changed from paper-based to computer-based. The *Code of Virginia* (22.1-254.2), "Testing for high school equivalency; eligibility; guidelines" are unchanged since July 1, 2006. Applicants must meet all other eligibility guidelines of the HSE examination provider. For more information, see Superintendent's Memo 010-17.

Virginia accepts GEDTS recommendations to move the passing score from 150 to 145. The new scores and performance levels are as follows:

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

If you have tested from January 1, 2014 to present and have earned a 145 or better on each subject of the GED test, you are now a graduate. Check your email (and spam folder) for a message from MyGED with more information about your status change. Your credentials will not be available until March 1, 2016. If you need verification of your passing score before then, GEDTS will provide a letter of verification for you.

Certificate of Program Completion

Available to students who complete prescribed programs of studies defined by a local school board but who do not qualify for diplomas.

GRADUATION (DIPLOMA) SEALS OF ACHIEVEMENT

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

Governor's Seal – Awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

Seal of Biliteracy - The Board of Education's Seal of Biliteracy certifies attainment of a high level of proficiency by a graduating high school student in one or more languages in addition to English.

Board of Education Seal – Awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A" beginning with the ninth-grade class of 2006-2007 and beyond.

Board of Education's Career & Technical Education Seal – Awarded to students who:

- earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses
- OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association
- OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Advanced Mathematics & Technology Seal – Awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and either

- pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
- OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia
- OR pass an examination approved by the board that confers college-level credit in a technology or computer science area.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Excellence in Civics Education Seal – Awarded to students who meet each of the following four criteria:

- Satisfy the requirement to earn a Modified Standard Diploma, a Standard Diploma or an Advanced Studies Diploma
- Complete Virginia & United States History and Virginia & United States Government courses with a grade of "B" or higher
- Complete 50 hours of voluntary participation in community service or extracurricular activities, such as volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; participating in Boy Scouts, Girl Scouts or similar youth organizations; participating in Junior Reserve Officer Training Corps (JROTC); participating in political campaigns, government internships, Boys State, Girls State or Model General Assembly; and participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.
- Have good attendance and no disciplinary infractions as determined by local school board policies.

Local school divisions may award other diploma seals or awards for exceptional academic, CTE, citizenship or other exemplary performance in accordance with criteria defined by the local school board. The design, production and use of those seals is the responsibility of the local school boards awarding the seal.

Board of Education's Excellence in Science and the Environment - The seal is available starting with students who are freshmen in the 2018 – 2019 school year. The qualifications for the seal are that the student must 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;
- laboratory or field-science research and present that research in a formal, juried setting; and
- 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.

FIRST-TIME TRANSFERS TO A VIRGINIA PUBLIC SCHOOL

Graduation requirements – in compliance with 8VAC 20-131-60 – for a student transferring into a Virginia public school for the first time in grades 9-12, depends on the grade the student is transferring into and when in the school year the student is transferring.

A student is considered to have transferred at the **beginning** of the school year if 20 or fewer hours of instruction have been completed. A student is considered to have transferred **during** the school year if more than 20 hours of instruction has been completed.

- Board of Education Guidelines for Local School Boards to Award Verified Credits for the Standard Diploma to Transition Students (PDF)

Standard Diploma Verified Credit Requirements (8 VAC 20-131-60.G.1 and H)

Beginning = First 20 hours of instruction

During = After the first 20 hours of instruction

Students transferring into a Virginia public school for the first time			
During 9th Grade OR Beginning of 10th Grade:	**Must Earn**	**Ninth Graders in 2000-01, 2001-02, 2002-03**	**Ninth Graders in 2003-04 and beyond**
6 Verified Credits:			
	English	2	2
	Mathematics		1
	Science		1
	History & Social Science		1
	Student Selected	4	1
During 10th Grade OR Beginning of 11th Grade:	**Must Earn**	Ninth Graders in 2000-01, 2001-02, 2002-03	Ninth Graders in 2003-04 and beyond
4 Verified Credits:			
	English	2	1

	Mathematics		1
	Science		1
	History & Social Science		1
	Student Selected	2	
During 11th Grade OR Beginning of 12th Grade:			
2 Verified Credits:			
	English	1	1
	Student Selected	1	1
During 12th Grade:	Students should be given every opportunity to earn a diploma; if this is not possible, the school division should arrange to have the previous school award the diploma; or seek a waiver of the verified credit requirement from VDOE.		

Six verified credits required for a student transferring during the 9th grade or at the beginning of the 10th grade

- English – 2
- Mathematics – 1
- Science – 1
- History & Social Science – 1
- Student Selected – 1

Four verified credits for a student transferring during the 10th grade or at the beginning of the 11th grade

- English – 1
- Mathematics – 1
- Science – 1
- History & Social Studies – 1

Two verified credits for a student transferring during the 11th grade or at the beginning of the 12th grade

- English – 1
- Student Selected – 1

For a student transferring during the 12th grade, every opportunity should be given to earn a diploma; if this is not possible the local school division should seek to have the previous school award the diploma or request from VDOE a waiver of the verified credit requirement.

Advanced Studies Diploma Verified Credit Requirements (8 VAC 20-131-50.C)

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

Students transferring into a Virginia public school for the first time		
During 9th Grade OR Beginning of 10th Grade:	**Must Earn**	**Ninth Graders in 2000-01 and beyond**
9 Verified Credits:		
	English	2
	Mathematics	2
	Science	2
	History & Social Science	2
	Student Selected	1
During 10th Grade OR Beginning of 11th Grade:	**Must Earn**	Ninth Graders in 2000-01 and beyond
6 Verified Credits:		
	English	2
	Mathematics	1
	Science	1
	History & Social Science	1
	Student Selected	1
During 11th Grade OR Beginning of 12th Grade:	**Must Earn**	Ninth Graders in 2000-01 and beyond
4 Verified Credits:		
	English	1
	Student Selected	3
During 12th Grade:	Students should be given every opportunity to earn a	

	diploma; if this is not possible, the school division should arrange to have the previous school award the diploma; or seek a waiver of the verified credit requirement from VDOE.

Nine verified credits required for a student transferring during the 9th grade or at the beginning of the 10th grade

- English – 2
- Mathematics – 2
- Science – 2
- History & Social Science – 2
- Student Selected – 1

Six verified credits for a student transferring during the 10th grade or at the beginning of the 11th grade

- English – 2
- Mathematics – 1
- Science – 1
- History & Social Studies – 1
- Student Selected – 1

Four verified credits for a student transferring during the 11th grade or at the beginning of the 12th grade

- English – 1
- Student Selected – 3

For a student transferring during the 12th grade, every opportunity should be given to earn a diploma; if this is not possible the local school division should seek to have the previous school award the diploma or request from VDOE a waiver of the verified credit requirement.

STANDARDS OF LEARNING

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

SOL tests in reading, writing, mathematics, science and history/social science measure the success of students in meeting the Board of Education's expectations for learning and achievement. All items on SOL tests are reviewed by Virginia classroom teachers for accuracy and fairness and teachers also assist the state Board of Education in setting proficiency standards for the tests.

Innovation in Student Assessment

The Virginia Department of Education is a national leader in the use of technology to develop and administer the Standards of Learning (SOL) tests. Virginia's school divisions have been administering online tests to students for over a decade. The current online tests for mathematics, science, reading, and writing contain technology-enhanced items (TEI). Online history tests will

contain field-test TEI (that do not count towards a student's score) beginning in spring 2016. Technology-enhanced Items require students to indicate their responses in ways other than a multiple-choice format. As part of the continuing effort to provide students with the best possible testing experience, Virginia is adding Computer Adaptive Testing (CAT) to the Virginia Standards of Learning Assessment Program.

Computer Adaptive Testing

A computer adaptive test (CAT) is an assessment that is customized for every student based on how the student responds to the test questions. During the 2015-2016 school year, most students who take the online grade 3 mathematics test and online grades 6 through 8 mathematics tests will be administered a computer adaptive version of the Standards of Learning (SOL) test. Watch the videos to learn how computer adaptive testing provides students with a customized assessment experience.

Technology-Enhanced Items

Today's online SOL assessments challenge students to apply what they have learned in ways not possible with traditional multiple-choice tests. Reading, writing, mathematics and science assessments include "technology enhanced" items that require students to demonstrate critical-thinking and problem-solving skills, much as they do in response to classroom assignments from teachers.

SOL Test Scoring & Performance Reports

Standards of Learning assessments in English reading, mathematics, science and history/social science are made up of questions that measure content knowledge, scientific and mathematical processes, reasoning and critical thinking skills. English writing skills are measured with a two-part assessment that includes multiple-choice items and an essay.

Student performance is graded on a scale of 0-600 with 400 representing the minimum level of acceptable proficiency and 500 representing advanced proficiency. On English reading and mathematics tests, the State Board of Education has defined three levels of student achievement: basic, proficient, and advanced, with basic describing progress towards proficiency.

Performance Level Descriptors

Performance level descriptors are available for SOL tests in reading, history and social science, mathematics and science. These descriptors convey the knowledge and skills associated with each performance (achievement) level.

The achievement levels for grades 3-8 reading and mathematics are: *Pass/Advanced, Pass/Proficient, Fail/Basic* and *Fail/Below Basic*.

The achievement levels for all science and history courses, as well as for End-of-Course (EOC) Reading, Algebra I and Geometry are: *Pass/Advanced, Pass/Proficient*, and *Fail/Does Not Meet*.

The achievement levels for EOC Algebra II are: *Advanced/College Path, Pass/Proficient,* and *Fail/Does Not Meet*.

GRADING SCALE FOR NORTHUMBERLAND COUNTY PUBLIC SCHOOLS

According to NCPS School Board Policy, the numerical scale shall be as follows:

A = 90 – 100	D = 60 – 69
B = 80 – 89	F = 0 – 59
C = 70 – 79	I = Incomplete

When averaging reporting period grades, no grade below 60 shall be used through grade nine.

Grade Point Average/Class Rank

According to NCPS School Board Policy, rank in class is determined by grade point average. The grade point average is determined by summing the total quality points earned and dividing by the number of courses taken. All courses identified for grades 9-12 are to be considered including those taken at grade 8 or earlier. For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the student's transcript and the student will not earn high school credit for the course. Such request must be made in writing to the high school counselor department prior to the end of the junior year. However, if a course is repeated in grades 9-12, the grade and course taken at grade 8 or earlier is not recorded on the student's transcript.

Quality points for regular classes are assigned as follows:

Grade	*Quality Points*
A	4.0
B	3.0
C	2.0
D	1.0
F	0.0

An additional 1.0 will be added to the weighted grade upon successful completion of a Dual Enrollment, Advanced Placement, and/or Chesapeake Bay Governor's School course. Successful completion is defined as completing the course with a passing grade. For example, a final grade of "A" in an AP course shall receive 5.0 quality points for purposes of calculating grade point average.

Grade	*Quality Points*
A	5.0
B	4.0
C	3.0
D	2.0
F	0

Honors courses receive an additional 0.5 quality points added to the weighted grade upon successful completion of the course. Successful completion is defined as completing the course

with a passing grade. For example, a final grade of "A" in an honors class shall receive 4.5 quality points.

Valedictorian/Salutatorian
Valedictorian/Salutatorian is based on the school division's procedures for computing class rank. No student shall be eligible for valedictorian/salutatorian who has not been enrolled in NHS for three consecutive years preceding high school graduation.

Repeating Courses
Courses with a grade of D or F may be repeated in an effort to more fully master the course (content).

If a student repeats and passes a course in which he/she originally earned an F, the student will receive credit for the course. The official transcript will record both the original course and the repeated course and the grades the student earned for each.

The grade the student earns when he/she repeats a course for a letter grade is included in the GPA. However, the grade the student originally earned will be removed from the calculation of the GPA. Hence, repeating a course in which a D or an F was earned (and, subsequently, earning a better grade) is an effective way of improving your GPA and perhaps your academic standing as well. Repetition of a course more than once requires approval of the student's principal and Director of Counseling.

Each course a student repeats will be coded on your transcript to indicate that your cumulative grade point average has been adjusted in accordance with NCPS academic policy on repeated courses.

GIFTED AND TALENTED

The focus of the Northumberland County Public Schools gifted program is to cultivate and place greater emphasis on the unusual abilities of the gifted students in order to help them become self-directed learners and independent critical thinkers. This program is focused on a multi- dimensional teaching approach that is designed to challenge the gifted student in grades K-12 using acceleration of course content and enrichment opportunities such as field trips, STEM activities, Scenario Writing, Future Problem Solving, The Memory Project, and Community Problem Solving.

The overall goal of this program is to nourish within each student a desire to achieve excellence and the need to be responsive to an ever changing school, community, and world. In Northumberland County Public Schools, education for the gifted is based on the following principles:

- Gifted students need opportunities to enhance their gifts and talents.
- Gifted students need opportunities to interact with other gifted students.
- Gifted students need opportunities to pursue their particular interests and share the results of these pursuits.

GOVERNOR'S SCHOOL, GOVERNOR'S STEM ACADEMY, RCC, AP, AND ONLINE COURSES

Dual Enrolled, Honors, and Advanced Placement courses are challenging due to rigor of content and the time demands necessary to complete assignments. Therefore, students and parents are asked to consider the commitment of scholarly time and effort when considering whether to enroll in Dual Enrolled, Honors, and Advanced Placement courses.

Advanced Placement course offered at Northumberland High School will vary based on teachers who have successfully completed Advanced Placement Teacher Training. Please ask your student's guidance counselor about Advanced Placement course opportunities.

Chesapeake Bay Governor's School (CBGS)

The Chesapeake Bay Governor's School for Marine and Environmental Science provides high-ability students from the Northern Neck and the Middle Peninsula with a rigorous curriculum through enrichment, exploratory, investigative, and career awareness experiences. Through the integration of math, science, technology, and research, woven with marine and environmental sciences, students have the opportunity to foster an appreciation and respect for environmental issues.

CBGS offers a community of learners the opportunity to explore connections among the environment, math, science, and technology in order to help develop leaders who possess the research and technical skills, global perspective, and vision needed to address the challenges of a rapidly changing society.

CBGS Admission

Students apply for admission to the Chesapeake Bay Governor's School in the fall of their freshman year. The selection committee reviews standardized test scores, academic achievement, and demonstrated interest in science and mathematics. Student selection is determined by each participating school division.

The Chesapeake Bay Governor's School is a partnership between the Virginia Department of Education, participating School Divisions, and Rappahannock Community College.

CBGS Participating Divisions & Sites

Bowling Green Campus: Caroline, King George, and King William Counties
RCC Glenns Campus: Gloucester, King & Queen, Mathews, Middlesex, and New Kent Counties
RCC Warsaw Campus: Essex, Lancaster, Northumberland, Richmond, and Westmoreland Counties; Town of Colonial Beach

CBGS Student Recruitment and Admission Process

Recruitment for Chesapeake Bay Governor's School starts in the fall. Application packets are given to the Advisory members of participating schools who in turn give them to the guidance counselors. The CBGS director and faculty members are available to visit the participating high schools to meet with the guidance counselors and interested students. They will bring visual aids and school

literature to pass out giving students some general information about the program. The students are invited to attend the governor's school campuses during school hours and monitor the classes.

Students who are eligible to attend Chesapeake Bay Governor's School are high ability tenth, eleventh and twelfth grade students from the participating school divisions. Depending on the year of application, students need to have successfully completed Algebra I, Geometry, and one or two high school credits in science (Earth Science preferred). The applying students should have a "B" average for ninth and tenth grade years. They should also have scored 85% or higher composite/total score on a standardized achievement and/or ability test OR 85% or higher on a math or science quantitative subtest.

Admission is competitive and is based on previous math and science courses, teacher recommendations, standardized achievement testing, science/math activities, and honors. Selection is determined by each participating school system.

Students who have successfully completed Algebra I, Geometry, and one or two high school credits in science (Earth Science preferred). The applying students should have a "B" average for ninth and tenth grade years. They should also have scored 85% or higher composite/total score on a standardized achievement and/or ability test OR 85% or higher on a math or science quantitative subtest.

CBGS Courses Offered
Students take a combination of the following courses: Algebra II, Pre-Calculus, Calculus, Statistics, Biology, Chemistry, Physics, Foundations in Science, and Marine & Environmental Science I & II.

All courses meet and/or exceed the Virginia Standards of Learning (SOL) requirements. In addition, students may earn dual enrollment credits for each course through Rappahannock Community College.

Northern Neck Technical Center Governor’s STEM Academy

Project Lead The Way (PLTW) is the leading provider of rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) education curricular programs used in middle and high schools across the U.S. STEM education is at the heart of today’s high-tech, high-skill global economy. For America to remain economically competitive, our next generation of leaders -- the students of today -- must develop the critical-reasoning and problem-solving skills that will help make them the most productive in the world. STEM education programs like the one offered by PLTW engage students in activities, projects, and problem-based (APPB) learning, which provides hands-on classroom experiences. Students create, design, build, discover, collaborate and solve problems while applying what they learn in math and science. They're also exposed to STEM fields through professionals from local industries who supplement the real-world aspect of the curriculum through mentorships and workplace experiences. For more information please visit our website at www.northernnecktech.org

The first two courses are offered at the student's home school while the third and fourth courses are offered at the Northern Neck Technical Center in one year as students take the third course in the fall and the fourth course in the spring. The third and fourth courses are offered in the PM timeframe.

Dual Enrollment Credits for STEM Academy Students

Students will earn 3 college credits for the Introduction to Engineering and Design course. They will earn 2 college credits from the Principles of Engineering, Civil Engineering & Architecture, and Engineering Design and Development courses.

How will a student benefit from being a part of the academy?

Receive dual high school and college credits

Participate in hands-on problem solving activities and project based learning experiences

Receive meaningful, real world instruction that will prepare you for high wage/high skill careers in the engineering field

Rappahannock Community College (RCC)/Dual Enrollment/AP Courses

Rappahannock Community College has **Dual Enrollment** agreements with most local high school systems to offer college-level courses that can be taken at the college or the high school location.

These Dual Enrollment programs are voluntary and enable students to take courses at RCC while enrolled in high school and provide college level educational opportunities not otherwise available.

If you're a Dual Enrollment student and you'd like to complete a certificate or degree, follow the plan requirements outlined in the certificate or degree program section of the *College Catalog* available on the RCC website.

Dual Enrollment FAQs *(from Rappahannock Community College website)*

What are the advantages to taking Dual Enrolled courses?

- Saves time and money
- May shorten the time to college degree completion
- Gives students early exposure to the academic rigors of a college level course
- Student is both a high school student and enrolled in college as well (dual enrolled)
- College credit is earned at the same time as high school credit
- College courses are taught at the college level
- Credit earned for many dual enrolled courses may be applied toward a degree or certificate once the student is enrolled in college

- Transfer applicable college credit to most 4-year colleges and universities in Virginia

Who pays for the tuition, books, testing and other fees related to dual enrollment classes?
The actual cost of enrolling in a dual enrollment course offered through RCC is determined by the public school division. In some instances, there is little or no actual cost to the student taken at Northumberland High School. In all cases, students can save money by earning college credit through the community college.

What courses are offered as dual enrollment credits?
RCC and the high school determine classes that are offered each semester as dual-enrollment courses. Typically, the dual-enrollment classes offered would be courses taken during a student's first year of college.

Who is eligible to take a dual-enrollment college class?
Students who take the RCC placement tests to demonstrate that they are prepared to do college level work (tests for high school dual enrollment course placement can be taken at either campus by appointment or may be scheduled at the local high school).

- Each student must complete an RCC dual enrollment application and an RCC online application.
- Students need high school and parental approval to enroll in RCC college courses.

Are dual enrollment classes transferable to a four-year college or university?
Dual enrollment classes that are designed to transfer to colleges and universities are considered university bound courses and are approved to satisfy the general education core requirement at the college freshman or sophomore level. However, not all dual enrollment courses are accepted at all colleges and universities. Families should inquire with the college/university admissions personnel to determine which credits will be accepted.

Dual enrollment classes are also offered that are job oriented courses
Students should consult with their high school counselor or the RCC high school academic pathway advisor to determine which courses are considered transfer courses.

College Transcripts
Students may request that a copy of their RCC transcript be sent to other colleges and universities from the RCC Office of Admissions and Records once coursework is complete. Students can make this request online and also view unofficial transcripts through the myRCC site.

How does a dual enrollment course differ from an Advanced Placement (AP) course?
A dual enrollment course is a college class taught by an instructor who has the degree and credentials to teach at a community college. Upon successful completion of a dual enrollment course, a student is awarded college credit from Rappahannock Community College as well as high school credit.

- A high school transcript and a college transcript are separately generated for each school.
- In an AP course the student must pass a standardized exam at the end of the course to receive college credit.

Why should a student consider dual enrollment classes?
Studies show that those who acquire college credits while still in high school are more likely to continue their education beyond high school.

- College credits earned during high school may help reduce the financial burden of full-time college tuition.

Why Should a Student Consider AP Classes?
Source: https://apstudent.collegeboard.org/exploreap/the-rewards

Stand Out in College Admissions

Deciding to take an AP course lets colleges and universities know that you have what it takes to succeed in an undergraduate environment. When admissions officers see "AP" on your transcript, they know that what you experienced in a particular class has prepared you well for the challenges of college. Taking AP is a sign that you're up for the most rigorous classes your high school has to offer.

Earn College Credits

By taking an AP course and scoring successfully on the related AP Exam, you can save on college expenses: most colleges and universities nationwide offer college credit, advanced placement, or both, for qualifying AP Exam scores. These credits can allow students to save college tuition, study abroad, or secure a second major. AP can transform what once seemed unattainable into something within reach.

Check out specific colleges' guidelines on accepting AP scores for credit and placement by searching our AP Credit Policy database.

Skip Introductory Classes

If you already know your preferred college major, taking a related AP course and earning a qualifying score on the AP Exam can help you advance and avoid required introductory courses – so you can move directly into upper-level classes and focus on the work that interests you most.

Even taking an AP Exam unrelated to your major – whether or not you know what you want to major in – can place you beyond your college's general education requirements. This opens up additional time on your schedule, enabling you to do a second major or minor, take exciting electives, or pursue additional interests.

Build College Skills

Taking an AP course builds the skills you'll need throughout your college years. You give your mind a rigorous workout while polishing up your time management and study skills. You also get better at handling challenging issues and problems, with the support of your AP teachers. AP courses let you know what to expect during the next phase of your educational journey, and help you build the confidence to succeed.

Online Courses

Selected online courses are available on a limited basis. Transfer credit will be accepted for courses available from Virtual Virginia and for approved courses available from multi-division online providers approved by the Virginia Board of Education. Please see your school counselor for the list of approved providers and courses, guidelines, and requests.

Virtual Virginia (VVa)

As a program of the Virginia Department of Education, Virtual Virginia (VVa) offers online Advanced Placement (AP®), world language, core academic, and elective courses to students across the Commonwealth and nation. Virtual Virginia is committed to providing high-quality, rigorous course content with the flexibility to meet schools' and students' varied schedules. Our program strives to provide instruction that meets the individual needs of students.

Virtual learning is the new frontier in today's educational institutions. The technology of the 21st century provides a unique opportunity for educators to reach students who want the experience of online courses.

VVa History

The Virginia Department of Education has a long history in providing distance learning opportunities for its middle and high school students. Beginning in the 1980's, Advanced Placement (AP®) and world language courses were offered via satellite to students throughout Virginia. The primary mission of the program was to serve rural and underserved students with courses that were unavailable because of the lack of highly qualified instructors or there were too few students to offer the course. Thousands of students in Virginia and across the nation have successfully completed courses using the Virginia Satellite Education Network (VSEN). Several years ago, the program added web-based delivery. The program became known as the Virtual Virginia Advanced Placement School (VVAPS). The Virginia Department of Education saw a need to combine these two programs and fully embrace online education. Through that process, Virtual Virginia was born.

THE VVa MODEL

When most people think of a high school "class", they envision a teacher standing in front of 25 students sitting at desks. Learning online through Virtual Virginia is very different. Students learn from Virtual Virginia through an individualized learning environment.

VVa Curriculum

Our web-based courses are built by teams of content area experts, online learning experts, and instructional designers. Course materials include readings, simulations, flash-based interactive practice, video files, and audio files. Our courses meet or exceed all applicable state and national standards, and our Advanced Placement courses have been approved by the College Board.

VVa Teachers

Our courses are taught by certified teachers who had successful teaching experience in face to face classrooms before being recruited to Virtual Virginia. Our highly-qualified team of teachers receives extensive training on how to teach effectively online. Our online teachers have two primary roles: managing the online course and working individually with students. As course managers, they set the pacing, score student work, facilitate course discussions, and ensure that students are thoroughly learning the curriculum. Teachers also work with students individually and in small groups through instant messaging, email, phone, and live web conferencing software during posted virtual office hours. Our teachers provide assistance when students have questions, but they also contact students directly to provide encouragement and supplementary customized instruction when needed.

VVa Pacing

Students move through the course material at the pace of their cohort/start date. Benchmark due dates are established to ensure that students stay on pace to complete the course by the end of school year, but students have flexibility between those due dates.

VVa Access

Students have 24/7 access to engaging, multimedia-rich web content. They can work on course assignments from any internet accessible location.

Recommendations concerning instructional placement of the student are the responsibility of the local school counselor. School counselors should review the course prerequisites listed with the course below. Please make sure the students understand the expectations for the online courses selected.

Counselors may request a waiver of prerequisites by contacting Virtual Virginia's Supervisor of Curriculum and Student Services, Gail Warren, at 757-470-3017, or gail.warren@virtualvirginia.org. School divisions are responsible for providing the required textbooks and supplemental reading materials (i.e. books, CD, etc.) for Virtual Virginia courses at no charge to students or parents. All Virtual Virginia course selections can be found at http://www.virtualvirginia.org/courses/catalog. Courses include the following:

9151 Advanced Placement Art History
4370 Advanced Placement Biology
3177 Advanced Placement Calculus AB
3178 Advanced Placement Calculus BC
5860 Advanced Placement Chinese Language and Culture
3185 Advanced Placement Computer Science A
1196 Advanced Placement English Language and Composition
1195 Advanced Placement English Literature and Composition

4270 Advanced Placement Environmental Science
2399 Advanced Placement European History
5170 Advanced Placement French Language
2450 Advanced Placement Government and Politics: Comparative
2445 Advanced Placement Government and Politics: US
2212 Advanced Placement Human Geography
5380 Advanced Placement Latin
2803 Advanced Placement Macroeconomics
2802 Advanced Placement Microeconomics
4570 Advanced Placement Physics 1
2902 Advanced Placement Psychology
5570 Advanced Placement Spanish Language
3192 Advanced Placement Statistics
2319 Advanced Placement US History
2380 Advanced Placement World History
5010 Arabic I**
5011 Arabic II**
5012 Arabic III**
4470 Chemistry (Advanced)
4410 Chemistry (Honors)
5810 Chinese I**
5820 Chinese II**
5830 Chinese III
5840 Chinese IV
1171 Creative Writing
4210 Earth Science I**
4260 Earth Science II – Astronomy
2804 Economics
6120 Economics and Personal Finance
5110 French I**
5120 French II**
6640 Introduction to Game Design & Development

5310 Latin I**
5320 Latin II**
5330 Latin III
5340 Latin IV
4510 Physics (Honors)
3162 Pre-Calculus/Mathematical Analysis
2903 Psychology
5510 Introductory Spanish**
5520, 5512 Beginning Spanish**
5530, 5522 Intermediate Spanish
5540, 5532 Advanced Spanish
5700 Survey of World Language and Culture**
2219 World History and Geography I**
1165 World Mythology

Courses noted with ** are also open to middle school students.

Advanced Placement® @ VVa

As a result of the College Board's AP® course audit process, the following Virtual Virginia course offerings have been approved to carry the Advanced Placement designation for the 2013-14 school year:

- AP Art History
- AP Biology
- AP Calculus AB
- AP Calculus BC
- AP Chemistry
- AP Chinese Language & Culture
- AP Computer Science A
- AP English Language & Composition
- AP English Literature & Composition
- AP Environmental Science
- AP European History
- AP French Language
- AP Government and Politics: Comparative

- AP Government and Politics: United States
- AP Human Geography
- AP Latin: Vergil
- AP Macroeconomics
- AP Microeconomics
- AP Physics 1
- AP Psychology
- AP Spanish Language
- AP Statistics
- AP U.S. History
- AP World History

VVa Advanced Placement Exam Reimbursement

School divisions were permitted to request reimbursement for AP exam fees for the 2013-14 school year. Please contact your counselor to inquire if reimbursement opportunities are available during this school year.

VVa Summer Session Enrollment

Virtual Virginia is offering **39** online courses for Summer Session 2018, including core, world language, and elective courses. Enrollment for Summer Session 2018 begins **April 1** and ends **June 14**. The school counselor or designated registrar of the school must register the student online through the Virtual Virginia registration system, Genius.

Summer Session 2018 courses begin Monday, June 18, and end Friday, July 27.

Tuition

The tuition for all students who enroll in Summer Session 2018 courses is $375 per course, regardless of a student's Early College Scholar status. Tuition must be paid at the time of course registration and must be made with an electronic debit, credit, or prepaid card. Virtual Virginia accepts VISA, MasterCard, or Discover.

If a student's tuition is not paid by Thursday, June 14, at 10 a.m., the student will be dropped from the course(s).

There will be no refund if a course is dropped after 3 p.m. on Monday, June 25. If a course is dropped prior to 3 p.m. on Monday, June 25, please contact Cynthia Evans at cynthia.evans@doe.virginia.gov to request a refund.

Enrollment

To enroll in a Virtual Virginia course, the local school must agree to award the assigned credit for the course. If the course includes a relevant end-of-course assessment, the local school will administer the assessment and award verified credit. Credit is posted to the student's transcript by the student's middle or high school.

Homeschooled students may also register for Virtual Virginia summer session courses. The home school instructor of record (who may be the parent/guardian) may enroll the student and the parent/guardian is responsible for payment of all fees associated with the course.

In order to be offered, all Summer Session 2018 courses are subject to minimum enrollments.

VIRGINIA PUBLIC COLLEGES AND UNIVERSITIES: SAT AND ACT REQUIREMENTS

Name and Location	Size	Test(s) Required
Christopher Newport University Newport News, VA	4,904	SAT I or ACT SAT II Not Used
The College of William & Mary Williamsburg, VA	7,892	SAT or ACT SAT II considered if submitted/may be required for some based on SAT I or ACT scores
George Mason University Fairfax, VA	30,714	SAT or ACT
James Madison University Harrisonburg, VA	18,454	SAT or ACT
Longwood University Farmville, VA	4,727	SAT or ACT
Norfolk State University Norfolk, VA	6,325	SAT or ACT
Old Dominion University Norfolk, VA	23,086	SAT or ACT
Radford University Radford, VA	9,157	SAT or ACT
University of Mary Washington Fredericksburg, VA	5,001	SAT or ACT

University of Virginia Charlottesville, VA	24,541	SAT or ACT
University of Virginia – College at Wise Wise, VA	1,911	SAT or ACT
Virginia Commonwealth University Richmond, VA	29,349	SAT or ACT (<3.3 GPA)
Virginia Military Institute Lexington, VA	1,300	SAT or ACT
Virginia Polytechnic Institute & State University Blacksburg, VA	30,739	SAT or ACT
Virginia State University Petersburg, VA	5,042	SAT or ACT

SPECIAL EDUCATION/504s

All students with disabilities who are eligible for special education services participate in the secondary curriculum according to their Individualized Educational Plans (IEPs) or 504s. A variety of programs are provided to meet the student's individual needs including supportive and related services, resource assistance, collaborative classes, and separate classes. Resource classes offer training in study skills, social skills, organization skills, and other educational needs identified on the students' IEPs. Collaborative classes are co-taught by special and general educators in the general education setting while separate classes are taught by one instructor in a small group setting.

Transition plans are developed as a part of the IEP for all students in special education beginning at the age of fourteen and focus on education, employment, and adult/community living. The purpose of the transition plan is to specify services such as career awareness, vocational evaluation, vocational training, adult agency linkages, or other services appropriate for the student to meet postsecondary goals. In the past, many young people with disabilities have left school unable to find satisfying jobs, living arrangements, friends and opportunities to participate in community life. Current research and discussions with parents, students, teachers and adult service providers, indicate that successful transitions do occur. The activities, programs and experiences, which prepare a student to leave school and adjust well to his or her adult life, include the following:

- A practical school curriculum that includes career education, development of employability skills and social skills, including the possibility of specific vocational training experiences in the community if available. Career education provides students with the opportunity to develop a concept of themselves as workers and as members of the community. The development of social skills, as well as vocational skills that help a person to get and retain a job, are imperative. Researchers have discovered that most often people with disabilities lose their jobs because they do not know how to interact appropriately with co-workers.

- A history of prior employment, such as volunteer activities, vocational training, part-time or summer work in the community. When students have the opportunity to experience the responsibilities of the world of work, they learn a variety of skills and knowledge. They are able to build a resume, or summary, of their work history, indicating to others that they can do the job.

- Participating in regular education classes and involvement in extracurricular activities in school. Once a student leaves high school, he/she becomes a part of a larger community. It makes sense to have a wealth of experience in that larger community before leaving school. Such experiences provide opportunities to gain social skills and broaden exposure to various educational and leisure activities.

- Opportunities to develop skills in decision-making and self-advocacy. In order to live and work successfully in the community, people must have the skills or support to be able to

make decisions and speak for themselves. When school and home life provide opportunities for students to make choices, whether it is for food, clothing or activities, they are better equipped for living independently.

- The existence of a self-family-friend network for a student. A young person is more apt to adjust well to life in the community if he/she has friends and family to help him or her find a job, living arrangements, transportation, and other necessities.

- Communication and coordination between school and adult service agencies. Adult service agencies are now involved with transition planning for students with disabilities. When schools and agencies know what services each provides, better transition planning can occur. In fact, the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 requires schools to coordinate transition plans and to ensure the necessary services and supports are in place prior to exiting high school.

- Further education or training after high school. People who have additional education or training are more likely to find and keep jobs and experience success in adjusting to their new adult roles. Post-secondary training occurs through programs offered by two or four year colleges, adult education programs, vocational rehabilitation and vocational training centers.

- Available transportation in the community. Being able to get around the town, city or county is critical to being a part of our community and holding a job. Learning transportation and mobility skills while in school enables students to use available transportation options.

- For employment, an appropriate match between a person and the job, based upon interests, strengths, capacities, career goals and needs for support. In a competitive job market, people accept jobs that may not necessarily match their interests and skills. A job that is interesting to a person and can be accomplished -- with or without support -- is more likely to be retained for a longer period of time.

- For home living and independent living services, appropriate matches between the individual and the people he/she lives with based on the individual's interests, strengths/ capacities, living style preference and needs for support. People adjust better to new living situations when they have some choice in the location, roommates and environment.

- Access to life-long supports, both formal and informal. Formal supports refer to all the planning, information services and programs provided to individuals with disabilities and their families through government agencies and private service providers. Informal supports refer to all the information, advice, resources and opportunities available to individuals with disabilities and their families through the network of friends, neighbors, acquaintances, other family members and co-workers.

MIDDLE AND HIGH SCHOOL COURSE DESCRIPTIONS

English / Language Arts

Language Arts Grade 6 **Year**
Course No. 1109
**** SOL Tested Course**
This course is a literature-based course integrating literature, writing, research, oral communication, and media literacy. English 6 emphasizes the application and refinement of reading comprehension strategies. Significant focus is placed on developing and analyzing effective communication skills in presentations and small group discussions. In addition, students will study and develop vocabulary, understand the basic elements of media literacy, build research skills, and utilize technology. Students will read, independently and in groups, a variety of fiction, narrative nonfiction, nonfiction, and poetry. Students will be introduced to figurative language. Additionally, students will plan, draft, revise, and edit narrative, descriptive, expository, and persuasive writing with concentration on composing, written expression, and usage/mechanics. English 6 students will take the Virginia Standards of Learning test in Reading.

Language Arts Grade 7 **Year**
Course No. 1110
**** SOL Tested Course**
This course is designed to expand the study of literature, writing, research, oral communication, and media literacy. Students will continue to learn and expand the use of reading comprehension strategies as well as research skills. They also will enhance their literacy skills by developing more advanced vocabulary and reading a variety of fiction, nonfiction, and poetry. Students will continue to develop oral communication skills independently and in small groups as well as knowledge of persuasive techniques used in the media. Students will plan, draft, revise, and edit expository as well as narrative and persuasive pieces with attention to composition, written expression, and usage/mechanics. English 7 students will take the Virginia Standards of Learning test in Reading.

Language Arts Grade 8 **Year**
Course No. 1120
**** SOL Tested Course**
This course emphasizes skill development in literature, writing, research, oral communication, and media literacy. Students will continue to learn and expand the use of reading comprehension strategies. Oral communication, including interviewing techniques, will be learned and applied in this course. In addition, students will analyze, develop, and produce creative and informational media messages. Students will apply knowledge of vocabulary and figurative language in texts. They will continue the study of literary elements, including theme, main idea, cause-effect relationships, and conclusions in a variety of literary and informational selections. By studying various genres and literary elements, students will examine novels, short stories, poetry, drama, and nonfiction. They will plan, draft, revise, and edit narratives as well as expository, persuasive, and informational pieces with attention to composition, written expression, and usage/mechanics. English 8 students will take the Virginia Standards of Learning tests in Reading and Writing.

Reading Enrichment Grades 6, 7, and 8 **Year**
Course No. 1180
Classes are designed for students requiring differentiated instruction in reading. This program provides an academically based opportunity for students to achieve a degree of mastery in phonemic awareness, phonics, fluency, vocabulary, and comprehension. The teacher supports students' reading through continued assessment, the provision of instructional level materials and planned interventions that reflect the student's identified needs, and the developmental nature of reading. Enrollment is based on a specific criterion process.

English 9 **Semester – 1 Credit**
Course No. 1130
A person who wishes to be successful in school and in work must be able to express him/herself. Language, both written and spoken, is the means by which we communicate. This course is designed to provide the student with the grammatical skills that are needed for the correct usage of the English language in both oral and written communication. It is designed to introduce the student to various types of literature and to acquaint him/her with the necessary terminology for future literary studies. The course also introduces the students to all facets of poetry. At the beginning of the year, students will participate in a variety of activities designed to improve their transition from middle to high school.

English 9 **Year – 1 English Credit/1 Elective Credit**
Course No. 1130
*Prerequisite**:** This course is designed for 9th graders who need additional supports in reading and writing.*
A person who wishes to be successful in school and in work must be able to express him/herself. Language, both written and spoken, is the means by which we communicate. This course is designed to provide the student with the grammatical skills that are needed for the correct usage of the English language in both oral and written communication. It is designed to introduce the student to various types of literature and to acquaint him/her with the necessary terminology for future literary studies. The course also introduces the students to all facets of poetry. At the beginning of the year, students will participate in a variety of activities designed to improve their transition from middle to high school.

English 9 Honors **Semester – 1 Credit**
Course No. 1130H
Prerequisite: A or B in English 8 or 450 or better on the Grade 8 Reading and Writing SOL. Completion of assigned reading and/or writing assignments prior to the the first day of class.
English 9 Honors deepens and advances the curriculum of English 9. Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students'

vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

English 10 **Semester – 1 Credit**

Course No. 1140

The first part of this course is designed to provide the student with instruction and practice in developing his/her language skills. The second part is designed to introduce the student to various types of literature and to acquaint him/her with the necessary terminology for effective discussion of literary selections encountered in English 11 and 12. Development of skills assessed on the English 11 SOL writing and reading tests is provided. In addition, basic writing and communication skills will be emphasized.

English 10 Honors **Semester – 1 Credit**

Course No. 1140H **One SOL Test: Writing

Prerequisite: A or B in English 9H or English 9. Completion of assigned summer reading selections and/or writing assignments prior to the first day of class.

English 10 Honors deepens and advances the curriculum of English 10. Students read and analyze a variety of literary and nonfiction texts, comparing and contrasting the techniques authors use in literature of different cultures and eras. Language study continues to extend students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on expository and analytic writing, students expand their understanding of writing as a process and develop their skills in revising to address a specific audience and purpose. In the research process, students collect, evaluate, organize, and present accurate and valid information to create a research product. They also improve communication and collaboration skills through small and large group discussions and presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

English 11 **Semester – 1 Credit**

Course No. 1150 ** Two SOL Tests: Writing & Reading

The focus of the English 11 curriculum is preparation for required SOL tests in Writing and Reading which are required for the Standard and Advanced Studies Diploma. The student will read selections revealing American ways of thinking and will relate them to historical periods to gain a perspective of contemporary American society, to seek the meaning of being an American, and to understand the American personality. The student will be aware of the ethnic and cultural

groups who have played a part in the formation of the United States of America. The student will continue to develop reading, writing, and speaking skills that allow him/her to function as a productive citizen.

English 11 Honors **Semester – 1 Credit**

Course No. 1150H **One SOL Test: Reading

Prerequisite: A or B in English 10H or English 10. Completion of assigned summer reading selections and/or writing assignments prior to the first day of school.

English 11 Honors deepens and advances the curriculum of English 11. Students read and analyze a variety of literary and nonfiction texts, comparing themes of various works and analyzing expository materials to draw conclusions. Language study extends students' vocabulary through applying understanding of connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on persuasive writing, students apply their skills and adapt content, vocabulary, voice, and tone to a specific audience and purpose. In the research process, students analyze, evaluate, synthesize, and organize information from a variety of sources to produce a research product. They also refine their oral communication skills through gathering and organizing evidence to support a position in informative and persuasive presentations. Students are required to take the Standards of Learning End of Course Test.

English 12 **Semester – 1 Credit**

Course No. 1160

This course is designed to provide the student with necessary tools to excel in both the English classroom as well as to prepare the student for future college or university settings. Students will be required to study through literary analysis, expository writing, research-based analysis, as well as other related skills. Literary study will focus on the major works of British literature from the Anglo-Saxon period through the modern periods. As part of the class curriculum, students will learn to write interpretations of literature that are based on textual details such as structure, style, and themes, as well as the use of figurative language, imagery, symbolism, and tone. Students will learn to analyze literature by looking at the social and historical values the texts embody and reflect; additionally, writing, editing, language, and reading comprehension skills tested on college entrance exams (ACT, SAT) will be reviewed, and a short unit will focus on the college application process. Students will build on previous years' experiences with research papers and will write a research paper relevant to current studies.

English 12: College Composition-Dual Enrollment **Year – 1 Credit**

Course No. 1160 DUAL & RCC: ENG 111/112

Prerequisite: A or B in English 11 Honors or English 11 and passing score on the Virginia Placement Test in English. Recommended: Pass advanced score on the English 11 Writing or Reading SOL.

This class concentrates on developing the skills leading to a finished product. Students will focus intensively on exercises that enhance writing skills; students also will revise writing in order to

produce the best possible written work. Students may earn six semester hours of community college freshman English credit through a partnership with Rappahannock Community College upon successfully completing the course.

English 12: Advanced Placement (AP) **Year – 1 Credit**
Course No. 1195
Prerequisite: A or B in English 11 Honors or English 11. Recommended: Pass advanced score on the English 11 Writing or Reading SOL.
As an AP course, this is a rigorous college-level course and is designed to teach beginning college writing. This course follows the curricular requirements as described in the AP English course description. The reading is challenging; the writing is frequent and requires an independent mind. Students will discuss writing and literature daily. In the discussions, students and teacher will address structure, style, diction, imagery, symbolism, metaphor, motif, tone, theme, syntax, and more. Students will learn how these make a work unique and will be reading from an intensive and extensive reading list. They will study British writers, American writers, and writers from all over the world. Students will read drama, fiction, nonfiction, and poetry, and they will read literature from the past and literature of today. In discussions of literature, students will learn the social, cultural, and historical values a work reflects and embodies. They will learn about literary criticism and how to look at literature through different lenses, internalizing, and making their own connections. All AP students are expected to take the national placement test in May and the cost of the exam may be the responsibility of the student. *Contact the school counselor if paying for the exam is not possible.

Broadcast Journalism **Semester – 1 Credit**
Course No. 1200
Journalism is an academic study concerned with the collection and editing of news. Journalism is designed with the following objectives: to develop better writing skills in the individual student through the study of various forms of journalism style; to learn the purpose and uses of journalism in society by studying its history, its functions and its forms; and to produce publications in various forms of media.

The major content of the course will be learning how to write in "newspaper" style. Students will be expected to be constantly writing in a method of developing journalism skills. In addition, the ability to reason, take notes, interview, and do research will be important aspects of the course.

Broadcast Journalism II **Semester – 1 Credit**
Course No. 1210
Prerequisite: Broadcast Journalism
In this course, students continue to learn and practice the language and processes of broadcast journalism and reporting. They develop an understanding of the role and responsibilities of broadcast journalists.

Creative Writing **Semester – 1 Credit**
Course No. 1171
Creative writing is designed to aid students in their creative expression, as well as delivery of one's writing. Students will read and discuss articles on the craft of writing. The first quarter will focus on fiction. Students will read and evaluate the effectiveness of fiction of varying styles. They will write and workshop short stories to complete a final portfolio. The second quarter will focus on poetry. Students will learn poetic vocabulary and read interpret poems of varying styles. Students will write and workshop each other's poetry to complete a final portfolio at the end of the quarter. Students will be expected to deliver their writing to an audience.

Expanding Literacy **Semester – 1 Credit**
Course No. 1165
This class is designed to reinforce and strengthen writing and reading skills and prepare for the English 11 EOC Writing and Reading test. It is targeted for the "at risk" student who failed the 8th grade Writing or Reading SOL, maintained a "D" in English 8, English 9, and English 10. These scores (or results) indicate that the student is reading far below grade level and has not mastered any test-taking strategies. With this class as well as English 11, the "at risk" student has reinforcement for necessary skills required for the EOC test. The class is only open to juniors and seniors who have not passed one of the 2 tests.

Photojournalism I **Semester – 1 Credit**
Course No. 1215
Prerequisite: Application and Teacher recommendation
The photojournalism course is designed to provide a hands-on journalistic experience for students in grades 9-12, which results in the production of the school's yearbook through coverage of school activities and sporting events and the literary magazine. Photography is a large portion of this class; although students are not required to have their own cameras, it is helpful. Because the yearbook and magazine are self-supporting, students are expected to participate in fundraising by selling ads to local businesses and various other fundraisers. All students must be academically eligible as defined by the Virginia High School League. An "A/B" average in English from the previous school year (and in Photojournalism if a returning student) is a prerequisite for all Photojournalism classes. *All students must complete an application for the class, have it signed by a parent, obtain a recommendation from his/her English teacher, and return the completed application to the Photojournalism teacher by the established deadline.*

Photojournalism II **Semester – 1 Credit**
Course No. 1216
Prerequisite: A or B in Photojournalism I

In Photojournalism II, students develop their copywriting skills and advance their photography and design skills as they create pages for the school's yearbook. They may become section editors.

Photojournalism III **Semester – 1 Credit**

Course No. 1217
Prerequisite: A or B in Photojournalism II

In Photojournalism III, students refine their copywriting skills and advance their computer and photography skills, develop individual style, and may assume leadership roles as members of the yearbook staff's editorial board.

ENGLISH / LANGUAGE ARTS PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
1109	Language Arts Grade 6		x							
1110	Language Arts Grade 7			x						Language Arts/ English 6
1120	Language Arts Grade 8				x					Language Arts/ English 7
1180	Reading Enrichment		x	x	x					Literacy and reading comprehension challenges
1130	English 9	1				x				None
1140	English 10	1					x			English 9
1150	English 11	1						x		English 10
1160	English 12	1							x	English 11
1160 DUAL	English 12 Dual Enrollment*	1							x	RCC Placement Test
1195	English 12	1							x	English 11

	Advanced Placement*									
1200	Broadcast Journalism I	1				x	x	x	x	None
1210	Broadcast Journalism II	1					x	x	x	Broadcast Journalism I
1171	Creative Writing	1				x	x	x	x	None
1215	Photojournalism I	1				x	x	x	x	A/B in English and Application
1216	Photojournalism II	1					x	x	x	A/B in English and Application
1217	Photojournalism III	1						x	x	A/B in English and Application

Mathematics
Middle School Sequence

Mathematics Grade 6 **Year**
Course No. 3110
**** SOL Tested Course**
The Math 6 curriculum includes the prescribed Virginia Standards of Learning (SOL) as a minimum. The sixth grade curriculum places emphasis on the study of rational numbers to include whole numbers, decimals, fractions, and percentages. Students will use ratios to compare data sets, make conversions within a given measurement system, make geometric constructions and classify three-dimensional figures, and solve linear equations in one variable. Students enrolled in this class will take the Mathematics 6 SOL test.

Advanced Mathematics Grade 6 **Year**
Course No. 3110ADV
**** SOL Tested Course**
The criteria for placement include: classroom teacher recommendation, an A for the year in 5th grade mathematics, and at least a 500 on the Math 5 SOL. Students need a minimum of two of the three criteria to be placed in Advanced Mathematics 6.

The **Advanced Mathematics Grade 6** curriculum includes the prescribed Virginia Standards of Learning (SOL) but enriches and challenges students to explore topics in greater detail. Students will be expected to apply their learning to real-world applications. Students enrolled in this class will take the Mathematics 6 SOL test.

Mathematics Grade 7 **Year**
Course No. 3111
**** SOL Tested Course**
The Mathematics 7 curriculum includes the prescribed Virginia Standards of Learning (SOL) as a minimum. The seventh grade curriculum places emphasis on solving problems involving consumer applications and proportional reasoning. Students will gain an understanding of the properties of real numbers, solve linear equations and inequalities, and use data analysis techniques to make inferences and predictions. Students enrolled in Mathematics 7 will take the Mathematics 7 SOL Test.

Advanced Mathematics Grade 7 **Year**
Course No. 3111ADV
**** SOL Tested Course**
The criteria for placement include: classroom teacher recommendation, an A for the year in 6th grade mathematics, and at least a 450 on the Math 6 SOL. Students need a minimum of two of the three criteria to be placed in Advanced Mathematics 7.
The **Advanced Mathematics Grade 7** curriculum includes the prescribed Virginia Standards of Learning (SOL) but enriches and challenges students to explore topics in greater detail. Students will be expected to apply their learning to real-world applications. Students enrolled in this class will take the Mathematics 7 SOL test.

Algebra I – Grade 7 **Year 1 Credit**
Course No. 3130
**** SOL Tested Subject**
The criteria for placement include: classroom teacher recommendation, an A for the year in 6th grade mathematics, and at least a 500 on the Math 6 SOL. Students need a minimum of two of the three criteria to be placed in Algebra I - Grade 7.
Seventh grade students who excel in the study of mathematics, as evidenced by student performance on a variety of formative and summative criteria, may be placed in Algebra I.
All students are expected to show proficiency on the Algebra I standards. Students will investigate functions; develop equation solving skills, along with exploring linear and quadratic relationships. Students will perform operations on polynomials as well as using statistics to interpret data. Systems of linear equations are also introduced. The emphasis throughout the entire course is solving problems contained in a world to world context. An SOL Test is required upon the completion of Algebra I. **The unit of credit and the final grade earned in this course will be included in the computation of a student's high school grade point average and class rank.**

Pre-Algebra/Math 8 – Grade 8 **Year**

Course No. 3112
**** SOL Tested Course**
The Pre-Algebra curriculum includes the prescribed Virginia Standards of Learning (SOL) as a minimum. The eighth grade curriculum is designed to prepare students to take Algebra I in high school. The curriculum extends concepts and skills learned in previous grades and include new content that prepares students for more abstract concepts in Algebra I. New concepts include solving multi-step equations, graphing linear equations, applying transformations to learning and applying the Pythagorean Theorem, geometric figures, and using matrices to organize and interpret data. Students enrolled in Pre-Algebra will take the Math 8 SOL Test.

Algebra I – Grade 8 **Year – 1 Credit**
Course No. 3130
**** SOL Tested Course**
The criteria for placement include: classroom teacher recommendation, an A for the year in 7th grade mathematics, and at least a 500 on the Math 7 SOL. Students need a minimum of two of the three criteria to be placed in Algebra I - Grade 8.
Eighth grade students who excel in the study of mathematics, as evidenced by student performance on a variety of formative and summative criteria, may be placed in Algebra I.
All students are expected to show proficiency on the Algebra I standards. Students will investigate functions; develop equation solving skills, along with exploring linear and quadratic relationships. Students will perform operations on polynomials as well as using statistics to interpret data. Systems of linear equations are also introduced. The emphasis throughout the entire course is solving problems contained in a world to world context. An SOL Test is required upon the completion of Algebra I. **The unit of credit and the final grade earned in this course will be included in the computation of a student's high school grade point average and class rank.**

Geometry – Grade 8 **Year – 1 Credit**
Course No. 3143
**** SOL Tested Course**
Prerequisite: Algebra I
Geometry is offered to students who have successfully completed the standards for Algebra I. Students will study angle relationships, parallel lines, polygons, symmetry, circles, and constructions. Formulas for surface area and volume will be used to solve practical problems. Proofs are approached intuitively, then formally, as the student is prepared to analyze, to synthesize, and to reach conclusions. Students enrolled in Geometry will take the Geometry End-of-Course SOL Test. Successful completion of the Geometry course will enable a student to earn one unit of credit. The course will be used to satisfy one unit of mathematics required for the chosen diploma option. If the student passes both the course and the Geometry SOL Test, the verified credit is awarded and the verified credit is used to satisfy graduation requirements. The unit of credit and the final grade earned in this course will be included in the computation of a student's high school grade point average and class rank.

High School Sequence

Algebra I **Semester– 1 Credit**
Course No. 3130
**** SOL Tested Course**
Prerequisite: Teacher recommendation, A or B for the year in Math 8, and At least 475 on the Pre-Algebra/Math 8 SOL. Students need a minimum of two of the three criteria to be placed in Algebra I .
All students are expected to show proficiency on the Algebra I standards. Students will investigate functions; develop equation solving skills, along with exploring linear and quadratic relationships. Students will perform operations on polynomials as well as using statistics to interpret data. Systems of linear equations are also introduced. The emphasis throughout the entire course is solving problems contained in a world to world context. An SOL Test is required upon the completion of Algebra I.

Algebra I Part I Course No. 3131 Semester – 1 Math* / Elective Credit
****No SOL Test**
Algebra I Part II Course No. 3132 Semester – 1 Math Credit
**** SOL Tested Course**
Prerequisite: Pre-Algebra/ Math 8
This course provides additional time for students to master the Algebra I standards. Students are enrolled in this class every day for a full block, completing the equivalent of a one-year course during each school semester. Students who are successful during Algebra I Part I during the first semester will continue with Algebra I Part II during the second semester. Students can earn one elective credit for the completion of Algebra I Part I for the first semester and one math credit for the completion of Algebra I Part II for the second semester. Students must successfully complete both parts in order to meet the state requirements for Algebra I under the Standards of Learning.
*Algebra I Part I will count as a math credit for students with an IEP or 504.

Algebra, Functions, & Data Analysis **Semester – 1 Credit**
Course No. 3134
Prerequisite: Algebra I
This course is designed for students to apply mathematics within the context of mathematical modeling and data analysis. Students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. The Algebra, Functions, and Data Analysis course is designed for high school students who successfully complete Algebra I.

Algebra, Functions, & Data Analysis "10" **Semester - 1 Credit**
Course No. 3134
Prerequisite: Algebra I and Algebra I SOL score < 400
This course is designed for students to apply mathematics within the context of mathematical modeling and data analysis. Students will study functions and their behaviors, systems of

inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. This Algebra, Functions, and Data Analysis course is designed for high school students who successfully complete Algebra I and score < 400 on the Algebra I SOL. This course will serve as remediation for the Algebra I SOL and students will retake the SOL at the conclusion of the semester.

Geometry Part I Course No. 3144 Semester - 1 Math* / Elective Credit
****No SOL Test**
Geometry Part II Course No. 3145 Semester – 1 Math Credit
**** SOL Tested Course**
Prerequisite: Teacher recommendation, Algebra I, and Algebra I SOL score 400 - 420
This course provides additional time for students to master the Geometry standards. Students are enrolled in this class every day for a full block, completing the equivalent of a one-year course during each school semester. Students who are successful during Geometry Part I during the first semester will continue with Geometry Part II during the second semester. Students can earn one elective credit for the completion of Geometry Part I for the first semester and one math credit for the completion of Geometry Part II for the second semester. Students must successfully complete both parts in order to meet the state requirements for Geometry under the Standards of Learning.
*Geometry Part I will count as a math credit for students with an IEP or 504.

Geometry Semester – 1 Credit
Course No. 3143
**** SOL Tested Course**
Prerequisite: Teacher recommendation, Algebra I , and Algebra I SOL score 400 - 439
Geometry is offered to students who have successfully completed the standards for Algebra I. Students will study angle relationships, parallel lines, polygons, symmetry, circles, and constructions. Formulas for surface area and volume will be used to solve practical problems. Proofs are approached intuitively, then formally, as the student is prepared to analyze, to synthesize, and to reach conclusions. Students enrolled in Geometry will take the Geometry End-of-Course SOL Test. Successful completion of the Geometry course will enable a student to earn one unit of credit. The course will be used to satisfy one unit of mathematics required for the chosen diploma option. If the student passes both the course and the Geometry SOL Test, the verified credit is awarded and the verified credit is used to satisfy graduation requirements. The unit of credit and the final grade earned in this course will be included in the computation of a student's high school grade point average and class rank.

Geometry Honors Semester – 1 Credit
Course No. 3143H
Prerequisite: *Teacher recommendation, Algebra I, and Algebra I SOL score > 439*
**** SOL Tested Course**

Geometry Honors is designed for students who have successfully completed Algebra I and passed the Algebra 1 SOL with a high score. Students will be learning about geometric figures, trigonometric relationships and reasoning. Different forms of proofs will be used. Since this is an honors class, students should expect homework including 1 or 2 projects during the course. Students enrolled in this course will be required to take the Geometry SOL exam. Passing the SOL exempts the student from the final. Passing the SOL test and the course earns a verified credit.

Algebra, Functions, & Data Analysis "G" **Semester - 1 Credit**
Course No. 3134
Prerequisite: Geometry and Geometry SOL score < 400
This course is designed for students to apply mathematics within the context of mathematical modeling and data analysis. Students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or a system of equations. This Algebra, Functions, and Data Analysis course is designed for high school students who successfully complete Geometry and score < 400 on the Geometry SOL. This course will serve as remediation for the Geometry SOL and students will retake the SOL at the conclusion of the semester.

Algebra II **Semester – 1 Credit**
Course No. 3135
**** SOL Tested Course**
Prerequisite: Teacher recommendation, Algebra I and Geometry, score between 420 and 439 on Geometry and/or Algebra I SOL.
Algebra II is designed to continue the study of topics explored in Algebra I. Topics include complex numbers; functions and graphs; systems of equations and inequalities; polynomials, logarithmic and exponential functions and equations; sequences and series. Graphing calculators are used to enhance the understanding of realistic applications through mathematical modeling and to aid in the investigation and study of functions, equations, and inequalities. A " C" average or higher in Geometry is recommended in order to advance to Algebra II. An SOL test is required upon completion of Algebra II.

Algebra II Honors **Semester – 1 Credit**
Course No. 3135H
****SOL Tested Course**
Prerequisite: Teacher recommendation, Algebra I and Geometry with an A or B average, and score > 440 on Geometry and/or Algebra I SOL.
The depth and level of understanding expected in Algebra 2 Honors is beyond the scope of Algebra II. Students are expected to not only master algebraic mechanics but also to understand the underlying theory and to apply the concepts to real-world situations in a meaningful way. A thorough treatment of advanced algebraic concepts is provided through the study of functions, polynomials, rational expressions, complex numbers, matrices, exponential and logarithmic

equations, infinite geometric sequences and series, permutations and combinations, data analysis, and selected topics in discrete mathematics.

Senior Capstone Mathematics **Semester – 1 Credit**
Course No. 3136
The mathematics capstone course is designed for high school seniors who: satisfactorily completed the required mathematics courses based on the Standards of Learning including Algebra, Functions, and Data Analysis or Algebra II; earned at least two verified credits in mathematics; and will attend college, but may need additional mathematics support to be prepared for college level mathematics courses. The course may support students who meet the same academic requirements but plan to enter the workforce (prepared for further workforce training) directly after graduating from high school. The course will add to students' preparation for college and the workplace by 1) enhancing skills in number and quantity, functions and algebra, geometry, and statistics and probability; and 2) simultaneously reinforcing readiness skills and dispositions in adaptability and flexibility, creativity and innovation, leadership, teamwork, collaboration, and work ethic.

Advanced Mathematics **Semester – 1 Credit**
Course No. 3160
Prerequisite: Algebra II
Advanced Mathematics is an in-depth study of trigonometry including solution of triangles, the unit circle, and identities. The concepts of complex numbers, logarithms, exponents, and binomial expansion will be discussed, along with a study of functions and their graphs. A "C" average or higher in Algebra II is recommended in order to advance to Advanced Mathematics.

Probability and Statistics **Semester – 1 Credit**
Course No. 3190
This course focuses on the basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. Students learn the fundamental ideas of probability and apply them in developing statistical methods. The study of statistics includes the interpretation of statistical graphs, measurement of central tendency and variation, regression, and correlation.

Honors Mathematical Analysis/ Pre- AP Calculus **Semester - 1 Credit**
Course No. 3162
Prerequisite: Teacher recommendation, Algebra II SOL > 440
Mathematics Analysis is an in-depth study of trigonometry including solution of triangles, the unit circle, and identities. The concepts of complex numbers, logarithms, exponents, and binomial expansion will be discussed, along with a study of functions and their graphs. **An "A" average in Algebra II is recommended in order to advance to Honors Mathematical Analysis.**

Pre Calculus **Semester – 1 Credit**
Course No. 3176

RCC: MTH 163 / MTH 164

Prerequisite: Math Analysis / Algebra II

Students should have successfully completed Advanced Mathematics or Algebra II or an equivalent course earning at least a "B" average or higher. This one year course offered as dual credit through RCC will allow the student to complete three credits of community college hours. This course presents college Algebra, matrices, and Algebraic, exponential, and logarithmic functions as well as trigonometry, analytic geometry, and sequences and series. Prerequisite: Competency in Math Essentials MTE 1-9 as demonstrated through the placement and diagnostic tests or by satisfactorily completing the required MTE units or equivalent at RCC. Credit will not be awarded for both MTH 163 and 166.

Advanced Placement Calculus AB **Semester – 1 Credit**
Course No. 3177

Prerequisite: Honors Math Analysis

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. You'll learn how to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and how to make connections amongst these representations. You will learn how to use technology to help solve problems, experiment, interpret results, and support conclusions." https://apstudent.collegeboard.org/apcourse/ap-calculus-ab

Advanced Placement Calculus BC **Semester – 1 Credit**
Course No. No Virginia Code

Prerequisite: AP Calc AB

"AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. This course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. You will learn how to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations." https://apstudent.collegeboard.org/apcourse/ap-calculus-bc

Applied Calculus / Statistics **Semester – 1 Credit**
Course No. 3190

& RCC: MTH 270 / MTH 240

Prerequisite: MTH 163

This course introduces limits, continuity, differentiation, and integration of Algebraic and transcendental functions, techniques of integration, and partial differentiation. Statistics presents an overview including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, and correlation and regression. Prerequisites: a placement recommendation for MTH 240 and successful completion of MTH 158, MTH 163, MTH 166 or equivalent. A "B" average or higher in MTH 163 (Pre-Calculus) Math Analysis/ Pre AP Calc is

recommended in order to advance to MTH 270 (Applied Calculus) AP Calculus. Credit will not be awarded for both MTH 270 and 271.

MATHEMATICS PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
3110	Mathematics Grade 6		x							
3110 ADV	Advanced Mathematics Grades 6		x							>499 Math 5 SOL, A for year, and teacher recommendation*
3111	Mathematics Grade 7			x						
3111	Advanced Mathematics Grade 7			x						>449 Math 6 SOL, A for year, and teacher recommendation*
3130	Algebra I Grade 7			x						>499 Math 6 SOL, A for year, and teacher recommendation*
3112	Pre-Algebra Grade 8	1			x					Mathematics Grade 7
3131	Algebra I Part I	1				x	x	x		
3132	Algebra I Part II	1				x	x	x		
3130	Algebra I	1				x	x	x	x	>474 Math 8 SOL, A or B for year, and teacher recommendation*
3144	Geometry Part	1				x	x	x	x	Algebra, Algebra I

	I									SOL >399
3145	Geometry Part II	1				x	x	x	x	Geometry Part I
3143	Geometry	1				x	x	x	x	Algebra I, Algebra I SOL >399
3143H	Honors Geometry	1				x	x	x	x	Algebra I, Algebra I SOL >439, teacher recommendation*
3134	Algebra, Functions, Data Analysis	1					x	x	x	Algebra I
3135	Algebra II	1				x	x	x	x	Geometry, Geometry SOL >399
3135H	Honors Algebra II	1				x	x	x	x	Geometry, Geometry SOL >439, teacher recommendation*
3160	Advanced Mathematics	1					x	x	x	Algebra II
3162	Honors Math Analysis – Pre-Calculus	1					x	x	x	Algebra II, Algebra II SOL >
3177	Advanced Placement Calculus AB	1						x	x	Honors Math Analysis/Pre-Calculus, teacher recommendation
3178	Advanced Placement Calculus BC	1						x	x	Advanced Placement Calculus AB
3138	Mathematics Senior Capstone	1							x	Grade 12**
3190	Probability and	1					x	x	x	Algebra II or

	Statistics									AFDA
3176	Pre-Calculus (dual enrollment)	1						x	x	Advanced Mathematics or A/B in Algebra II
3176	Applied Calculus (dual enrollment)	1						x	x	Pre-Calculus Dual

Students must have at least two of the three criteria;refer to course description for all prerequisites.*

STEM Reminder: A student who will participate in the full STEM program and will graduate with an Advanced Studies Diploma will need to enroll in the following courses during middle and high school. Course planning should begin in sixth grade!

STEM PATHWAY

Academy Advanced Academic Programs Minimum Required Course Progressions for STEM		
	Mathematics Course	**Science Course**
Grade 7	Pre-Algebra	Life Science
Grade 8	Algebra I	Physical Science
Grade 9	Geometry	Earth Science or Biology
Grade 10	Algebra II	Biology or Chemistry
Grade 11	Math Analysis Statistics Pre-Calculus	Chemistry
Grade 12	Pre-Calculus Calculus	Physics or Virtual Virginia AP Science Course

Science

Introduction to Earth and Environmental Science – Grade 6 Year Course No. 4105

Sixth grade science builds on the scientific concepts, skills, and processes acquired in kindergarten through fifth grade. Students will experience the richness and excitement of scientific discovery and the natural world as they study the role of the sun's energy on the Earth's systems, air and atmosphere, human interactions as they affect watershed systems, and basic chemistry concepts. The concept of change is explored through the study of transformations of energy and matter. A more detailed understanding of the solar system and space exploration takes students on a collaborative quest for knowledge and understanding. Emphasis is placed on development and use

of an experimental design in scientific inquiry, use of the language of science to communicate understanding, and investigation of phenomena using technology.

Life Science – Grade 7 **Year**
Course No. 4115
The living world is emphasized by studying change, life cycles, patterns, and relationships. Students gain an understanding of these principles through the following: the study of organization and the classification of organisms; the relationship among organisms; populations, communities and ecosystems; and change due to the transmission of genetic information from generation to generation. Skills with data analysis are continued along with the introduction of the manipulation of variables in experimentation and identifying sources of experimental error.

Physical Science – Grade 8 **Year**
Course No. 4125
** **SOL Tested Course**
Physical Science emphasizes the nature and structure of matter and the characteristics of energy. Areas of study include the following: the periodic table; physical and chemical changes; nuclear reactions; temperature and heat; sound; light; electricity and magnetism; and work, force, and motion. Research and experimentation and the manipulation of variables to validate conclusions will also be part of the class. Students will share their work through written and oral presentations. Students will take a Virginia Standard of Learning test upon completion of this course.

Earth Science – Grade 9 **Semester – 1 Credit**
Course No. 4210
** **SOL Tested Course**
Earth Science is the study of a group of sciences with emphasis on the physical environment. Some of the major fields in the earth sciences are astronomy, geology, oceanography, meteorology, and paleontology.

Biology **Semester – 1 Credit**
Course No. 4310
** **SOL Tested Course**
Biology is the study of living organisms at chemical, cellular, and systemic levels. Life functions and processes within the organism and between organisms are studied. The history of biological concepts and changes that occur within organisms and populations are presented. Laboratory work includes experiments, dissection, and microscopy. An SOL test is required upon completion of Biology. Biology meets the requirements of the Advanced Studies diploma.

Earth Science II: Oceanography- Grade 11,12 **Semester – 1 Credit**
Course No. 4250
Prerequisites: Earth Science and Biology

Oceanography explores geophysical and biological factors and covers topics such as the geology and geography of ocean basins, physical properties of seawater, marine chemistry, marine biology, salinity and density circulation in the oceans, waves, and tides. The course is designed to be a survey of oceanography concepts.

Biology II: Ecology **Semester – 1 Credit**

Course No. 4340

Prerequisites: Biology

Ecology is the study of the interactions between living organisms and their environments. Students are given the opportunity to investigate topics concerning our own Chesapeake Bay Watershed as well as other exotic ecosystems. Activities are directed at promoting student interest in issues related to a sustainable environment.

Biology II: Advanced Survey of Zoology **Semester – 1 Credit**

Course No. 4320

Prerequisite: Biology

The goal of the Zoology course is to introduce students to animal biology at an in-depth level. Students will study the major divisions of the animal kingdom. Students will study anatomy and physiology, classification, and identification. Students will focus on the anatomy and physiology of several specific phyla such as Mammalia and Reptilia. Students will have the opportunity to handle many specimens and complete a dissection.

Chemistry **Semester – 1 Credit**

Course No. 4410

** **SOL Tested Course**

Prerequisites: Biology & Geometry; Algebra II recommended

Chemistry is the study and investigation of the structure, properties, and behavior of matter. The course is designed to follow a sequential development of major chemistry principles. It also provides the student with a variety of laboratory work to introduce or reinforce these principles. This course is rigorous in mathematics and concurrent enrollment in or the completion of Algebra II is recommended.

Biology II – Advanced Survey of Biology Topics **Semester – 1 Credit**

Course No. 4320

Prerequisite: Completion of Biology with a C average or higher

This course is a more in-depth, rigorous study of biology, including topics in ecology, biochemistry, genetics, embryology, and comparative anatomy. Selected topics in genetic engineering, cloning, and bioethics are presented.

Honors Physics **Semester – 1 Credit**

Course No. 4510

Prerequisite: Chemistry & Algebra II

Physics is a science which describes and explains the interactions of matter and energy. Students gather information and organize it so that meaningful patterns emerge. Areas covered include properties of light and heat, the laws of motion, and the laws of magnetism and electricity. This course is rigorous in mathematics and it is recommended that students be concurrently enrolled in Pre-Calculus, Math Analysis, or Calculus.

SCIENCE PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
4105	Intro to Earth & Environmental Science		x							
4115	Life Science			x						
4125	Physical Science				x					None
4210	Earth Science	1				x				None
4310	Biology I	1					x			None
4250	Earth Science II: Oceanography	1						x	x	Earth Science and Biology I
4340	Biology II: Ecology	1						x	x	Biology I
4320	Biology II: Advanced Survey of Biology Topics	1						x	x	Biology I
4320	Biology II: Advanced Survey of Zoology	1						x	x	Biology I
4410	Chemistry	1						x	x	Biology & Geometry

4510	Physics	1						x	x	Chemistry & Algebra II
4320	Biology II: Anatomy and Physiology	1							x	Biology & Chemistry

STEM Reminder: A student who will participate in the full STEM program and will graduate with an Advanced Studies Diploma will need to enroll in the following courses during middle and high school.

STEM PATHWAY

Academy Advanced Academic Programs Required Course Progressions for STEM		
	Mathematics Course	**Science Course**
Grade 7	Pre-Algebra	Life Science
Grade 8	Algebra I	Physical Science
Grade 9	Geometry	Earth Science or Biology
Grade 10	Algebra II	Biology or Chemistry
Grade 11	Math Analysis Statistics Pre-Calculus	Chemistry
Grade 12	Pre-Calculus Calculus	Physics or Virtual Virginia AP Science Course

Social Science & History

US, VA and Northern Neck Studies – Grade 6
Course No.
Students will study the geography and the history of the United States, Virginia and the Northern Neck region of Virginia. Emphasis will be placed on the historical contributions of the eight Presidents of the United States from Virginia and the importance of the Chesapeake Bay. Students will also prepare for US History Part II by reviewing US History Part I. This class will be offered only 2018-19.

US, VA and Northern Neck Studies – Grade 7
Course No.
Students will study the geography and the history of the United States, Virginia and the Northern Neck region of Virginia. Emphasis will be placed on the historical contributions of the eight Presidents of the United States from Virginia and the importance of the Chesapeake Bay. Students will also be introduced to the content for 8th grade Civics and Economics. This class will be offered only 2018-19.

Civics and Economics – Grade 8 **Year**
Course No. 2357
** **SOL Tested Course**
Students study the structure and functions of government at the national, state, and local levels and the United States economic system. Focus will be placed upon the principles and structure of American constitutional government, rights and responsibilities of American citizenship, political processes, economic principles and systems, and the role of government in the economy.

World Geography – Grade 8 **Year – 1 Credit**
Course No. 2210
** **SOL Tested Course**
World Geography examines the environmental and cultural patterns of the major world regions. Critical thinking skills are developed and applied as students examine demographic and economic data and investigate the causes, effects, and possible solutions to current international conflicts, problems, and environmental concerns. Map skills are extended as students use an atlas and varied types of maps in regional studies, build spatial perceptions, and develop a mental map of the world. Democratic values and citizenship are reinforced as students develop an appreciation of the cultural diversity of the world, learn to work cooperatively with classmates, and build an appreciation and concern for the environment. Students are expected, in addition to the requirements of the course, to take the World Geography End-of-Course Test, if not previously taken and passed.

World History I (Prehistory to 1500 A.D.) **Semester – 1 Credit**
Course No. 2215
** **SOL Tested Course**
The course emphasizes how people in various cultures influence and are influenced by their physical interactions. The World History course will study major world developments from pre-history, the rise and growth of civilizations to the first empires dating to 1500 A.D. Emphasis will be placed upon early political and economic structures, religion and philosophy, and the arts and sciences.

World History II (1500 A.D. to Present) **Semester – 1 Credit**
Course No. 2216
** **SOL Tested Course**
The World History course will study the rise and expansion of the modern world, modern world crises, and world events through the present. Emphasis will be placed upon political and economic structures in the modern world, religion and philosophy; and the arts and sciences.

United States History – Grade 11 **Semester – 1 Credit**
Course No. 2360
** **SOL Tested Course**
This course covers U.S. History from Colonial Times to the Present, following the State Standards of Learning for U.S. history. Course grade is based upon classroom work and exams. This is a required course for all students.

United States Government – Grade 12 **Semester – 1 Credit**
Course No. 2440
Prerequisite: U.S. History
The student will study various types of past and present forms of government, aspects of democracy, the three branches of government, the U S Constitution, the world's economy, and foreign policy. World political systems, with emphasis on communism, will be studied. The student will become aware of his/her rights and responsibilities. This is a required course for all students.

The Second World War – Dual Enrollment **Semester – 1 Credit**
Course No. 2296-Local History Elective & RCC: HIS 267
Prerequisite - World History I
Examines causes and consequences of the Second World War. Includes the rise of totalitarianism, American neutrality, military developments, the home fronts, diplomacy, and the decision to use the atomic bomb. RCC Credit – HIS 267

The American Constitution-Dual Enrollment **Semester -1 Credit**
Course No. 2297-Local History Elective & RCC:HIS 268
Prerequisite – US History
The American Constitution analyzes the origin and development of the United States Constitution. Includes the evolution of civil liberties, property rights, contracts, due process, judicial review, federal-state relationships, and corporate-government relations. RCC Credit-HIS 268

Advanced Placement (AP) World History – Grade 10 **Semester – 1 Credit**
Course No. 2380
** **SOL Tested Course**
This course explore key themes of world history, including interaction with the environment, cultures, state-building, economic systems, and social structures, from approximately 8000 B.C.E. to the present. All AP students are expected to take the national placement test in May and the cost of the exam may be the responsibility of the student. Please see a counselor if payment for the exam poses a challenge.

United States History – Dual Enrollment **Semester – 1 Credit**
Course No. 2319
** **SOL Tested Course**
This course explores the developments that have shaped U.S. history though the critical analysis of historical events and materials. RCC Credit - HIS 121 & 122

Advanced Placement (AP) Government – Grade 12 **Semester – 1 Credit**
Course No. 2445

This course is designed to give students an analytical perspective on government and politics in the U.S. This course involves the study of general concepts, which are used to interpret U. S. politics and to analyze specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up political reality. All AP students are expected to take the national placement test in May and the cost of the exam may be the responsibility of the student. Please see a counselor if payment for the exam poses a challenge.

SOCIAL SCIENCE & HISTORY PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
	US, VA and Northern Neck Studies		x							
	US, VA and Northern Neck Studies			x						
2357	Civics and Economics				x					
2210	World Geography	1				x				
2215	World History I	1				x				
2216	World History II	1					x			
2360	United States History	1						x		11th Grade
2440	United States Government	1							x	12th Grade US History
2319	AP World History	1					x			
2380	AP US History	1						x		
2445	AP United States Government	1							x	12 Grade & US History

(STEM) Cluster

STEM Reminder: A student who will participate in the full STEM program and will graduate with an Advanced Studies Diploma will need to enroll in the following courses during middle and high school.

Science, Technology, Engineering, & Mathematics

Academy Advanced Academic Programs Required Course Progressions for STEM		
	Mathematics Course	**Science Course**
Grade 7	Pre-Algebra	Life Science
Grade 8	Algebra I	Physical Science
Grade 9	Geometry	Earth Science or Biology
Grade 10	Algebra II	Biology or Chemistry
Grade 11	Math Analysis Trigonometry Statistics	Physics
Grade 12	Calculus Advanced Placement Mathematics	Physics or Virtual Virginia AP Science Course

Introduction to Engineering Design
Course No. 8439
In this foundation course in Project Lead the Way (PLTW), students use 3D computer modeling software as they learn the engineering-design process and solve design problems for which they develop, analyze, and create product models. Students will have to pass the RCC dual enrollment test in order to enroll.

Principles of Engineering
Course No. 8441
In this course in Project Lead the Way (PLTW), students explore the engineering profession and the fundamental aspects of engineering problem solving. Students study the historical and current impacts of engineering on society, including ethical implications. Mathematical and scientific concepts will be applied to fundamental engineering topics, including mechanics and electrical-circuit theory. Students must take the Introduction to Engineering Design course as a prerequisite.

Architectural Drawing and Design **18 weeks**
Course No. 8492
Grade Level: 11-12
Prerequisite: Must be 16 years old by December 1st of current year and be able to read at the 10th grade level.
Dual Enrolled with RCC: DRF 111 & DRF112 6 college credits

High School credits: 1.5
Students learn the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential and commercial building designs, rendering, model making, structural details, and community planning. Students use computer aided drawing and design (CADD) equipment and establish standards or codes to prepare models for presentation. The course provides information helpful for the homeowner and is especially beneficial to the future architect, interior designer, or homebuilder.

Engineering Drawing and Design **18 weeks**
Course No. 8493
Grade Level: 11-12
Pre-requisites: 16 years old on or by December 1st of the current school year and be able to read at the 10th grade level.
Dual Enrolled with RCC: DRF 231 & DRF232 6 college credits
High School credits: 1.5
In this course, students increase their understanding of drawing techniques learned in the prerequisite course. They use computers, calculators, descriptive geometry, and established standards to solve design problems in product design, technical illustration, assembly, patent, and engineering design. Throughout the course, they hold seminars, meet engineers, and tour technical design firms in order to learn about the benefits of the course on their future study and career.

Visual & Performing Arts

Art

Beginning Art – Grade 6 **Year**
Course No. 9103
This course includes a framework that aids the student in learning the characteristics of visual arts by using a wide range of subject matter, symbols, meaningful images and visual expressions. The student will continue to use an expanding art vocabulary while describing his or her work and the work of others. Artwork should reflect increased manual and creative skills in addition to expanded knowledge of the use and application of the elements of design. The student should be able to classify two-dimensional and three-dimensional images and construct a three-dimensional form. An introduction of color theory should give the student an ability to identify and construct a simple color wheel. ***(This is a 9-week course and part of the 6th Grade rotation).***

Intermediate Art – Grade 7 **Year**
Course No. 9105
This course teaches the development of visual perception and recording from direct observation, memory and the imagination. The student should prepare and develop an idea or theme by collecting and organizing visual resources. In classroom discussions, the student will continue to

use expanding Art vocabulary while describing his expanded knowledge of the use of texture, pattern, shape, line and color. The student should be able to apply the basic rules of perspective, proportion, value, and color theory. The student should be able to manipulate distance, size, and placement to create three-dimensional effects on a two-dimensional plane.

Art – Grade 8 **Year**
Course No. 9120
In this foundation course, emphasis is placed on the elements and principles of design. The student will put into use these elements and principles through a variety of media. Drawing, painting, graphics, and 3-D activities will comprise the curriculum with an emphasis on design and composition in each area.

Art I – Foundations **Semester**
Course No. 9120
The major objective of this introductory course is to teach an understanding and appreciation for studio art and art history as they relate to each other. Students will be taught art history in a chronological order and at the same time will be taught the elements and principles of art. Art skills will be developed as students develop an appreciation of art. A textbook will be utilized in this course**.** A portfolio, sketchbook and notebook are required.

Art II – **High Renaissance – 20th Century Art** **Semester**
Course No. 9130
Prerequisite: Art I
This course is a continuation of Art I with a focus on the High Renaissance through 20th century Art. Students will continue to build on their understanding of the elements and principles of art through the study of Art History. Students will also continue to develop their art skills. A textbook will be utilized in this course. A portfolio, sketchbook, and notebook are required.

Art III – Introduction to Drawing & Painting **Semester**
Course No. 9140
Prerequisites Art I & II
Drawing: Introduction to drawing concentrates on understanding and manipulating the two-dimensional surface through a series of structured drawing problems, including still-life, environment and live model. Shape, form, line, surface, value and texture are investigated with a variety of media. Drawing media includes charcoal, ebony pencil, and India ink.
Painting: Introduction to painting provides an exploration of paint as a physical, as well as a visual medium. Students will become familiar with color, surface, space, and texture through a variety of subject matter. Painting media includes watercolor, acrylic tempera, and oil paint. A portfolio, sketchbook and notebook are required for both drawing and painting.

Art IV – Sculpture including ceramics **Semester**
Course No. 9140
****Prerequisites Art I, II, & III**

This introductory course focuses on developing and understanding the three-dimensional form. Students will explore the behavior of, and experiment with, traditional and contemporary sculpting materials, such as and not limited to paper, clay, stone, wire, and plaster. A portfolio, sketchbook and notebook are required.

Graphic Arts Design I **Semester**
Course No. 9153
****Prerequisite: Art I**
This course is designed to acquaint students with the basic principles of Graphic Design. Emphasis will be placed on conceptual design, illustration, and color theory. Students will explore the fundamentals of advertising layout, graphic design, and various forms of illustration: pen and ink, gouache, airbrush, watercolor, color pencil, acrylic and markers. Students will have access to the art lab where they will be introduced to the computer and various software programs to be used as design tools. Students will be required to purchase a sketchbook. A portfolio, sketchbook and notebook are required.

Photography I **Semester**
Course No. 9195
****Prerequisite: Art I**
Students will become acquainted with various aspects of creating and manipulating the digital image. Students will be introduced to the basic principles and applications of digital photography as a medium. Students will capture images using the digital camera while emphasizing the manipulation of camera controls, exposure, lighting, on and off camera flash, web and image storage and archival. Students are required to have a digital camera (point and shoot or DSLR). A digital camera is necessary for this course.

ART PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prereq.
9103	Beginning Art		x							
9105	Intermediate Art			x						
9120	Art Foundations				x					
9120	Art I	1				x	x	x	x	
9130	Art II	1				x	x	x	x	Art I

9140	Art III	1					x	x	x	Art I & II
9145	Art IV	1						x	x	Art I, II, & III
9153	Graphic Arts Design	1				x	x	x	x	Art I
9195	Photography I	1				x	x	x	x	Art I

Chorus

Beginning Chorus – Grade 6 **Year**
Course No. 9269

Beginning Chorus is offered to students who wish to develop their knowledge, understanding, and appreciation of vocal music. It offers students the opportunity to improve their vocal technique and skills in musicianship, to develop an understanding and appreciation for vocal music, and to participate in concerts. The selection of music for study and performance may be based upon a variety of styles and/or periods of music history and provides a variety of vocal experiences**.** Sixth grade students sign up for Chorus as part of their Quarterly rotation. They also have an option of taking the course for the full spring semester.

Intermediate Chorus – Grade 7 **Year**
Course No. 9270
This course builds upon the content of beginning chorus by extending a student's skills and understanding of musical compositions, basic theory structure, music history, vocal pedagogy, proper vocal production and technique. The goals of the course are based on the Virginia Standards of Learning and set higher expectations in a student's knowledge and understanding of vocal technique; elements of music theory; ear training; sight-singing; music repertoire development; music history, analysis and technology. Continued development of the student's ability to perform as an ensemble is a strong focus for the course. Additional goals continue as students are guided to understand the role of music in our society; appreciate different cultures and customs; acquire stage presence and decorum; and maintain positive attitudes for further choral study.

Advanced Chorus – Grade 8 **Year**
Course No. 9271
Advanced chorus builds upon the content of the beginning and intermediate courses and establishes a higher expectation level for a student's development and refinement of skills and understanding of musical compositions, basic theory structure, music history, vocal pedagogy, proper vocal production and technique. The goals of the course are based on the Virginia Standards of Learning. These goals target increasing and deepening a student's knowledge and understanding of vocal technique, music theory, ear training, sight-singing, music repertoire, music history, analysis, and technology. The continued development of the student's ensemble performance skills is a strong

focus for the course. Students also extend their understanding of music through interdisciplinary activities and exploration of career opportunities in the field of music. Additional goals continue to guide students to understand the role of music in our society; appreciate different cultures and customs; acquire stage presence and decorum; maintain positive attitudes for further choral study in high school; and to prepare for a positive high school chorus experience.

Concert Choir **Year**
Course No. 9296
The purpose of Concert Choir is to provide students with an opportunity to participate in a vocal performing ensemble. Emphasis will be placed on preparing and presenting choral pieces at concerts throughout the year. Students will learn basic musical notation and terminology, as well as music history.

Band

Beginning Band – Grade 6 **Year**
Course No. 9230
Beginning Band develops students' basic instrumental skills. These skills will provide a solid foundation upon which students will build as they advance to the intermediate level. Through classroom performance, students will learn the mechanics of proper sound production, will attain knowledge of rhythm and rhythm patterns, and will begin developing the social skills necessary to function successfully in a group situation. Students must supply their own instruments. This is not a rotating class. Students who sign up for band will take band for the entire school year.

Intermediate Band – Grade 7 **Year**
Course No. 9231
This is a full year course. Intermediate band is a continuation of beginning band. In intermediate band, the student continues to learn proper playing technique and develop ensemble skills. The teacher follows the county adopted curriculum, which is based on the Virginia Standards of Learning. Evaluation of progress is based on individual playing tests, written work, and daily class participation. Daily at-home practice is necessary to continue mastering playing technique. The student will attend scheduled performances, which are extensions of classroom material.

Advanced Band – Grade 8 **Year**
Course No. 9229
This is a full year course. Advanced band is a continuation of beginning and intermediate band. In advanced band, the student refines playing skills and develops higher-level listening skills. The teacher follows the county adopted curriculum, which is based on the Virginia Standards of Learning. Evaluation or progress will be based on individual playing tests, written work, and daily class participation. Daily at-home practice is necessary to continue mastering playing technique. The student will attend scheduled performances, which are extensions of classroom materials.

High School Symphonic Advanced Band **Semester – 1 Credit**

Course No. 9234
Emphasis is on the continuation of developing musical skills through performance of concerts and festivals. Additional emphasis will be placed on band history, notation, and creativity. Student must have at least one year experience on his/her instrument. Students wishing to take band may be required to audition to show that they can function musically at the level of the band. Inclusion as a percussionist may be limited based on space in the class. Priority will be given to those percussion students who participate in marching band.

Marching Band and Color Guard **Semester – 1 Credit**
Course No. 9296
The marching band is a full credit elective performing ensemble that is made up of the winds, percussion, and color guard. Emphasis is placed on outdoor performances throughout the year. These include football games, field shows, competitions, and parades. All meetings of this class are outside of school hours**.** Students are required to attend band camps before school starts. This usually occurs in July or August. There will be several short practices throughout the summer months.

CHORUS & BAND PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
9269	Beginning Chorus		x							
9270	Intermediate Chorus			x						
9271	Advanced Chorus				x					
9230	Beginning Band		x							
9231	Intermediate Band			x						
9229	Advanced Band Grade 8				x					
9234	High School Symphonic Advanced	1				x	x	x	x	1 year of band or audition

	Band									
9296	Concert Choir	1				x	x	x	x	Director recommendation
9296-MB	Marching Band and Color Guard	1				x	x	x	x	

World Language

French I **Semester NHS / Year NMS – 1 Credit**
Course No. 5110
The main objective of French I is to enable students to attain a measurable degree of communicative competency and proficiency in each of the four language skills: listening, speaking, reading, and writing. Cultural aspects of the French-speaking world are explored. Middle school students are enrolled on a limited basis based on their academic achievement and course availability.

French II **Semester NHS / Year NMS – 1 Credit**
Course No. 5120
Prerequisite: French I
Students continue to develop skills in listening, speaking, reading, and writing and to engage through active practice in real-life situations. Cultural study of the areas of the world where the language is spoken is expanded.

French III **Semester – Credit 1**
Course No. 5130
Prerequisite: French II
This course broadens the base of communicative language skills to an intermediate level of proficiency.

French IV Honors **Semester – 1 Credit**
Course No. 5140
Prerequisite: French III
Depending on enrollment, students in French IV may have combined classes with other levels of French.
This fourth year of French is a continuation of the first three years. The student will continue to sharpen listening, speaking, reading and writing skills through activities that are based on

pedagogically proven methods of foreign language instruction. Throughout the units, students learn to express themselves using an ever increasing vocabulary, present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The course is rich in authentic text reading material and authentic, native speaker recordings and presentations to enrich culture, grammar and vocabulary presentations. Culture is sprinkled throughout the course in an attempt to help the learner focus on the French speaking world and their culture, people, geographical locations and histories.

Spanish I **Semester NHS / Year NMS – 1 Credit**
Course No. 5510
In the beginning course, students gain an understanding of the components of a world language and of the study skills necessary to learn a world language. As students begin to develop skills in listening, speaking, reading, and writing, they engage in active practice in real-life situations and in a variety of cultural contexts.

Spanish II **Semester NHS / Year NMS – 1 Credit**
Course No. 5520
Prerequisite: Spanish I
In the second year, students continue to develop skills in listening, speaking, reading, and writing and to engage in active practice in real-life situations. Cultural study of the areas of the world where the language is spoken is expanded.

Spanish III – Grades 9 – 12 **Semester – 1 Credit**
Course No. 5530
Prerequisite: Spanish II
This course broadens the base of communicative language skills to an intermediate level of proficiency.

Spanish IV Honors **Semester – Credit 1**
Course No. 5540
***Prerequisite: Spanish III**
This fourth year of Spanish is a continuation of the first three years. The student will continue to sharpen listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the units, students learn to express themselves using an ever increasing vocabulary, present-tense verbs, past-tense verbs, future tense, conditional tense, subjunctive mood, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The course is rich in authentic text reading material and authentic, native speaker recordings and presentations to enrich culture, grammar and vocabulary presentations. Culture is sprinkled

throughout the course in an attempt to help the learner focus on the Spanish speaking world and their culture, people, geographical locations and histories.

WORLD LANGUAGE PATHWAY

Course No.	Course Title	Credit	6	7	8	9	10	11	12	Prerequisite
5110	French I	1		x	x	x	x	x	x	
5120	French II	1			x	x	x	x	x	French I
5130	French III	1				x	x	x	x	French II
5140	French IV	1					x	x	x	French III
5510	Spanish I	1		x	x	x	x	x	x	
5520	Spanish II	1			x	x	x	x	x	Spanish I
5530	Spanish III	1				x	x	x	x	Spanish II
5540	Spanish IV	1					x	x	x	RCC placement test & Spanish III

Health & Physical Education

Note: Students are required to purchase a Physical Education uniform.

Health and Physical Education – Grade 6 **Year Course No. 7110**

Students in Middle School Physical Education will develop fundamental skills and build them into more skilled movements as they progress through eighth grade. In all grades, students will focus on cooperative and competitive games, dance and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette and respect for others. Students will focus on personal wellness and goal setting as it relates to their cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition. In Health, students will cover a variety of

topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs, family life and disease.

Health and Physical Education – Grade 7 **Year**
Course No. 7120
Students in middle school Physical Education will develop fundamental skills and build them into more skilled movements as they progress through eighth grade. In all grades, students will focus on cooperative and competitive games, dance and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette and respect for others. Students will focus on personal wellness and goal setting as it relates to their cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition. In Health, students will cover a variety of topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs, family life and disease.

Health and Physical Education – Grade 8 **Year**
Course No. 7200
Students in middle school Physical Education will develop fundamental skills and build them into more skilled movements as they progress through eighth grade. In all grades, students will focus on cooperative and competitive games, dance and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette and respect for others. Students will focus on personal wellness and goal setting as it relates to their cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition. In Health, students will cover a variety of topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs, family life and disease.

First Aid, CPR & AED Training
Students, beginning with first-time ninth grade students in the 2016-2017 school year, are required to be trained in emergency first aid, CPR and the use of AEDs, in order to earn a standard or advanced diploma.

Health and Physical Education – Grade 9 **Semester – 1 Credit**
Course No. 7300
Health & Physical Education is required for all students in grades nine and ten. The ninth grade course is composed of prevention and control of disease, personal health problems, consumer health, first aid, drug abuse, environmental health, family life education, and personal hygiene.

The objective of the physical education program is to provide a physical activity instruction that will aid the student in developing into a mature member of society. Team-dual and individual activities from beginning skills to advanced are taught. Team sports include hardyball, team handball, flag football, volleyball, softball, basketball, gymnastics, track and field, various dances, ultimate Frisbee, and recreational activities.

Health and Physical Education – Grade 10 **Semester – 1 Credit**
Course No. 7405
Health & Physical Education is required for all students in grades nine and ten. The content of the tenth grade course consists of driver education, mental health, teenage problems, drug abuse, and parenthood and family life education.

The objective of the physical education program is to provide a physical activity instruction that will aid the student in developing into a mature member of society. Team-dual and individual activities from beginning skills to advanced are taught. Team sports include hardyball, team handball, flag football, volleyball, softball, basketball, gymnastics, track and field, various dances, ultimate Frisbee, and recreational activities.

Advanced Conditioning **Semester – 1 Credit**
Course No. 7640 – C
Advanced Conditioning is designed to teach the student-athlete the proper warm- ups, exercises, and techniques involved in weightlifting of free weights. In addition, the student will be taught foot speed and other cardiovascular drills that will enhance the aerobic condition of the athlete. Ongoing assessment includes both written and performance-based skill evaluations. **Prerequisite: a student must have successfully completed Health and Physical Education 9 with a "B" or higher (OR a "C" average with previous teacher approval).**

Advanced Physical Education **Semester - 1 Credit**
Course No. 7800 - ADV
Advanced Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth student in specific areas. The student will participate in activities that include (1) health-related fitness activities (cardiorespiratory endurance, muscular strength, and endurance, flexibility and body composition), (2), team sports; (3) individual or dual sports, and (4) outdoor pursuits. It includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Ongoing assessment includes both written and performance-based skill evaluations. This course is open to both females and males. **Prerequisite: a student must have successfully completed Health and Physical Education 10 with a "B" or higher (OR a "C" average with previous teacher approval).**

Driver Education

At Northumberland High School, **classroom driver education is** taught through the tenth grade health and physical education classes. If a teacher is available and there is student demand, classroom driver education is taught during the summer months.

The **in-car phase of driver education is** arranged between student and instructor. Students must be passing classroom driver education or have already passed the classroom portion.

The Regulations Establishing Standards for Accrediting Public Schools in Virginia, September, 1997, state "Classroom driver education shall count for 36 class periods minimum of health education."

Obtaining an Instruction Permit

If the applicant is at least 15 years 6 months old and under the age of 18, he/she may obtain an instructional permit at a DMV customer service center after completing the following requirements:

1. Complete the Virginia driver's license application form.
2. Furnish proof of a social security number.
3. Provide an original identification document certifying name and date of birth.
4. Furnish proof of residency, either by submission of a Certificate of Enrollment form available in the guidance office, presentation of 'official' mail addressed to the applicant, or by verification by a parent/guardian.
5. Pass knowledge and vision tests.
6. Have photo taken.

Driver Education Behind-the-Wheel Road Test

Students are required to take a road test as a part of behind-the-wheel driver education training. Students who do not pass the road test will be required to complete additional practice time with their parents/guardian and the driver education instructor before retaking the test. The 45-hour Parent-Teen Guide must be finished in its entirety before license is issued. Students are required to clear all financial obligations with the school before beginning the in-car phase of driver's education.

Obtaining a Driver's License

The minimum age to apply for a license is 16 years 3 months. A driver's license applicant must be in good academic standing and regularly attending school. If the applicant is under the age of eighteen, the following requirements must be completed IN ORDER TO OBTAIN A DRIVER'S LICENSE:

1. The student must hold a valid learner's permit for a period of at least 9 months and successfully complete a classroom and behind-the-wheel driver education program that includes the following components: alcohol and other drugs, road rage, motorcycle awareness, organ transplant, and a road skills test. The classroom instruction is 36 periods minimum and the behind-the-wheel instruction includes 7 periods of driving and 7 periods of observation time.
2. After successfully completing the classroom and behind-the-wheel driver education program and passing the road test, the student will be issued a temporary license that is valid for 180 days. A parent's signature and drivers license number is required on the TDL-180 **before** being issued to their child.
3. The 45 hour Parent Teen Guide must be finished in its entirety before license is awarded.

4. The school will send DMV a copy of the temporary license. DMV will process the temporary license and mail the permanent license to the judge of the local Juvenile and Domestic Relations Court.
5. The court will notify the student by mail as to when to appear before the judge with a parent/guardian to receive the permanent license. If a parent does receive a court date within 60 days of the expiration of the TDL-180, then it is the parent's responsibility to contact the court.

Students 19 Years of Age or Older

If you are 19 years of age or older, and you have not previously held a driver's license, you must show proof that either a) you passed a state-approved driver education course which consists of both the classroom and in-car phases, or b) you held a learner's permit at least 30 days before taking the DMV road skills test.

Partners for Safe Teen Driver:

All parents of Northumberland High School students who plan to receive their license should attend this program when the dates are announced by the high school. The agenda of the program includes the Driver Education curriculum, insuring the teen driver, your role in coaching your teen's driving, and traffic laws that affect teen drivers.

Policy: In-Car Traffic Safety Education:

Any student found guilty of a traffic violation or whose school behavior indicates that they may not be responsible enough to safely operate a motor vehicle, will not be permitted to participate in the Northumberland County's driver education in-car phase. The student is to find an alternate program in order to complete their in-car phase. Offenses include drug and alcohol abuse, theft, assault, or any other violent behavior.

Driving Skills:

Students may be required by the instructor to receive additional time driving either with the instructor or with their mentor in order to improve driving skills. Students who pass their road test will not receive their provisional driver's license until all financial obligations to the school are paid.

Road Test:

The student will have two chances to pass the road test. In the event the student fails the road test twice, the student will be charged $25.00 dollars for each additional test administered.

HEALTH & PHYSICAL EDUCATION PATHWAY

Course No.	Course Title	Cr	6	7	8	9	10	11	12	Prerequisite

7110	Health & Physical Education 6		x							
7120	Health & Physical Education 7			x						
7200	Health & Physical Education 8				x					
7300	Health & Physical Education 9	1				x	x	x	x	
7405	Health/DRED/ Physical Education 10	1					x	x	x	Health/PE 9
7640-C	Advanced Conditioning	1					x	x	x	Must have passed Health and PE 9 with a “B” or higher OR have previous instructor approval
7800-ADV	Advanced Physical Ed.	1					x	x	x	Must have passed Health and PE 10 with a “B” or higher OR have previous instructor approval

PAES (Practical Assessment Exploration System)

PAES (Practical Assessment Exploration System) is a curriculum that operates in a simulated work environment. Students become employees and teachers become supervisors. Strict work procedures are followed so students get the feel of real work while exploring career and vocational opportunities. Each student will complete a progression of activities that evaluate basic skills in a functional curriculum. There are five work area units: Business/Marketing - Computer Technology- Consumer /Services Construction/Industrial - Processing/Production.
Students will also experience on-the-job opportunities in the community. The class meets both semesters. Students will receive 1 elective credit that can be sequential (PAES 1, PAES 2, PAES 3, PAES 4).

Career & Technical Education

Career Investigation - Phase I **Quarter**
Grades 6 - 8
Course No. 9068
This course prepares students to be "career investigators." To obtain the title, students must assess their roles in society, identify their roles as workers, analyze their personal assets, complete a basic exploration of career clusters, select career fields or occupations for further study, and create a plan based on their academic and career interests.

Family & Consumer Sciences Exploratory – Grade 6 **Quarter**
Course No. 8261
As part of the Family and Consumer Sciences program, this course causes students to explore a range of life skills including wellness, nutrition, and personal and financial management of resources. Project work will allow students to develop basic workplace ethics and practices. Core subject concepts will be incorporated in course topics. Food preparation using a variety of food products is an integral part of this course.

Family & Consumer Sciences – Grade 7 **Year**
Course No. 8245
This course is designed to help improve or strengthen interpersonal relationships with peers and the family. Students will develop technical skills in planning and serving nutritious foods. They will develop management skills in clothing selection to meet personal and family needs. Interior design principles will be studied and adapted to create an attractive, efficient, functioning living space. Students will gain knowledge of resource management including time, energy, finances, and stress management. Career exploration activities assist students with high school course selection.

Life Planning – Grade 8 **Year**
Course No. 8227
This course equips students with the skills needed to face the challenges of today's society. Students will develop a life-management plan which includes developing career, community, and life connections; healthy relationships; financial planning; and leadership within the community. Critical thinking and practical problem solving are emphasized through relevant life applications.

Eighth (8th) Grade students who successfully complete this course will earn one (1) elective credit towards their graduation requirements.

Computer Applications – Grade 8 **Year**
Course No. 6611
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.

Education & Training Cluster
This diverse Career Cluster prepares learners for careers in planning, managing and providing education and training services, and related learning support services. Millions of learners each year train for careers in education and training in a variety of settings that offer academic instruction, career and technical instruction, and other education and training services.

Virginia Teachers for Tomorrow I – Grades 11 and 12 **Semester/Year**
Course No. 9062
RCC: SDV 110
Prerequisite – Application, GPA Min. of 2.7

Virginia Teachers for Tomorrow II – Grades 11 and 12 **Semester/Year**
Course No. 9072
RCC: EDU 195/198
Prerequisite – Minimum B average in Course 9062
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 reflect on their teaching experiences. Additional educational leadership opportunities are offered through the student organization, Future Educators Association. **Virginia Teachers for Tomorrow are now part of the Educator's Rising program.**

Course Code	Course Title	9	10	11	12
9062	Virginia Teachers for Tomorrow I*			x	x
9072	Virginia Teachers for Tomorrow II*			x	x

**Dual Enrollment courses*

Available Industry Credentials:

National Career Readiness
Work Keys
Workplace Readiness Skills for the Commonwealth

Government and Public Administration Cluster

Government affects Americans in countless ways. In a democratic society, government is the means of expressing the public will. This includes a variety of activities. In fact, virtually every occupation can be found within government. There are, however, some activities that are unique to government. The federal government defends us from foreign aggression; represents American interests abroad; deliberates, passes, and enforces laws; and administers many different programs. State and local governments pass laws or ordinances and provide vital services to constituents. There are many opportunities in government in every career area. The Government and Public Administration Career Cluster focuses on those careers that are unique to government and not contained in another Career Cluster.

Military Science I – Grades 9 and 10 **Semester/Year**
Course No. 7913

Students are introduced to the JROTC curriculum, and basic U.S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies.

Military Science II – Grades 9 and 10 **Semester/Year**
Course No. 7916

Students are introduced to the JROTC curriculum, and basic U.S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies.

Military Science III – Grades 10, 11, and 12 **Semester/Year**
Course No. 7918

Students continue to develop their leadership skills through working as command and staff leaders. Additional communication skills are developed, including methods of instruction, preparation, and proper conduct of cadet-led classes. Human relations, group dynamics, orienteering, contemporary U. S. issues, and advanced military history studies are also included.

Military Science IV – Grades 11 and 12 **Semester/Year**
Course No. 7919

Students continue to develop their leadership skills through working as command and staff leaders. Additional communication skills are developed, including methods of instruction, preparation, and proper conduct of cadet-led classes. Human relations, group dynamics, orienteering, contemporary U. S. issues, and advanced military history studies are also included.

Leadership Development **Semester/Year**
Course No. 9097
Students develop competencies in identifying individual aptitudes in relation to effective leadership skills, understanding organizational behavior, using effective communication in the workplace, handling human resources and organizational problems, supervising and training employees, resolving conflict, and planning for the future. Continuing education in leadership is emphasized as well as practical leadership experiences in cooperation with school and community leaders.
Note: Leadership Development 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.

Course Code	Course Title	9	10	11	12
7913	Military Science I	x	x	x	x
7916	Military Science II	x	x	x	x
7918	Military Science III		x	x	x
7919	Military Science IV			x	x
9097	Leadership Development			x	x

Available Industry Credentials:
National Career Readiness
Workplace Readiness Skills for the Commonwealth
ASVAB

<u>Health Science Cluster</u>
The Health Science Career Cluster orients students to careers that promote health, wellness, and diagnosis as well as treat injuries and diseases. Some of the careers involve working directly with people, while others involve research into diseases or collecting and formatting data and information. Work locations are varied and may be in hospitals, medical or dental offices or laboratories, cruise ships, medevac units, sports arenas, space centers, or within the community.

Emergency Medical Technician I **Semester/Year**
Course No. 8333
RCC: EMT 100/101

Prerequisite: Students must be at least 16 years old prior to the first day of EMT instruction.
The tasks for this course represent the National Emergency Medical Services Educational Standards. Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required. Successful completion of the second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.

Emergency Medical Technician II **Semester/Year**
Course No. 8334
RCC: EMT 112/113
Prerequisite: Students must be at least 16 years old prior to the first day of EMT instruction.
The tasks for this course represent the National Emergency Medical Services Educational Standards. Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required. Successful completion of the second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.

Advanced First Aid and Health Professional CPR **Semester/Year**
This course will provide the most current guidelines for CPR developed by the American Heart Association (AHA). The student will receive training in Cardiopulmonary Resuscitation (CPR/Automated External Defibrillator (AED)/Foreign Body Airway Obstruction (FBAO). The student will have an opportunity to become certified in Basic Life Support (BLS) for Healthcare Providers (HCP) CPR. This course will provide the knowledge for the student to perform basic and advanced first aid. Students will be provided an opportunity to gain skills towards first aide competency such as victim assessment, splinting, controlling bleeding, poisoning and burns. The student will have an opportunity to become certified in Advanced First Aid. Supervised lab time is provided for students to complete required projects.

Course Code	Course Title	9	10	11	12
8333	Emergency Medical Technician I*			x	x
8334	Emergency Medical Technician II*			x	x
	Advanced First Aid and Health Professional CPR	x	x	x	x

Dual Enrollment courses

Available Industry Credentials:
National Career Readiness
Workplace Readiness Skills for the Commonwealth
Emergency Medical Technician Exam

Information Technology Cluster

The Information Technology Cluster offers students current technological advances in computer applications, systems, and communications, using the latest software available. Students are taught what 'Dressing for Success' means in the world of business. The Future Business Leaders of America (FBLA) is the Career and Technical Education student organization designed to develop personal employability and leadership skills for all students enrolled in business and information technology courses. Through participation in the organization, the business students learn leadership skills, how to hold office and direct the affairs of a group, to work with representatives of other student organizations, and to compete with their colleagues in other schools. A component of the student's grade is a set of competencies/tasks where the student must demonstrate specific skills. In each of these courses, a student's grade is based on traditional class work as well as course competency completion.
Dual Enrollment courses

Keyboarding – Grades 6 **Quarter**
Course No. 6150
This course is designed for middle school students to develop and enhance touch skills for entering alphabetic, numeric, and symbol information on a keyboard. Students compose and produce personal, educational, and professional documents.

Digital Applications – Grades 9 and 10 **Semester / Year**
Course No. 6611
DE RCC: AST 101/AST 117
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.

Computer Information Systems – Grades 10, 11, and 12 **Semester/Year**
Course No. 6614
DE - RCC: ITE 100
Prerequisite: Computer Applications with a grade of C or above.
In Computer Information Systems, students apply problem-solving skills to real-life situations through word processing, spreadsheet, database, and multimedia presentation software, and through

integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, and telecommunications, and emerging technologies.

Advanced Computer Information Systems – Grades 10, 11, and 12 **Semester/Year**
Course No. 6615 Grade Levels: 10 – 12*
DE - RCC: ITE 130
*Prerequisite: Computer Information Systems**
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.

Available Industry Credentials:
National Career Readiness
Workplace Readiness Skills for the Commonwealth
Microsoft Office Specialist
Internet and Computing Core Certification (IC3)

Design, Multimedia, and Web Technologies **Semester/Year**
Course No. 6630
DE - RCC: ITD 110
Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Websites, using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a résumé and a variety of desktop-published, multimedia, and Web-site projects produced in the course.

Course Code	Course Title	9	10	11	12
6611	Digital Applications*	x	x		
6614	Computer Information Systems*		x	x	
6615	Advanced Computer Information Systems*		x	x	x
6630	Design, Multimedia, and Web Technologies		x	x	x

The **Computer Applications Specialist Career Studies Certificate** is made up of six classes, which adds up to 18 credits overall. With the Computer Applications Specialist program, students

will learn data entry, word processing, using presentation software, using multimedia applications, and basic webpage design. All 18 credits can be earned at NHS by taking:
Computer Applications, Computer Information Systems, and Advanced Computer Information Systems. Each of these courses earns six (6) credits toward the 18 credits for the Computer Applications Specialist Career Studies Certificate.

Human Services Cluster

The courses offered in the Human Services Cluster provide students with a set of experiences to prepare them for adulthood; to help them become competent in the management of their individual, family and work lives; and to help them apply these skills to jobs and careers. The curriculum includes the development of the process skills of managing work and family life, solving personal and family problems, relating to others, and assuming a leadership role as responsible citizens. All students enrolled, are encouraged to join the local chapter of the Virginia Association - Family, Career and Community Leaders of America. A component of the student's grade is a set of competencies/tasks where the student must demonstrate specific skills. In each of these courses, a student's grade is based on traditional class work as well as course competency completion.

Independent Living **Semester/Year**
Course No. 8219

This course allows students to explore successful strategies for living independently by actively participating in practical problem solving focusing on: relating to others (relationships), applying financial literacy, managing resources in the areas of apparel, nutrition and wellness, and housing, using leadership skills to reach individual goals, planning for careers, and making consumer choices in a global environment.

Available Industry Credentials:

National Career Readiness
Workplace Readiness Skills for the Commonwealth

Life Planning **Semester/Year**
Course No. 8227

Life Planning equips students with the skills to face the challenges in today's society. Students will develop a life-management plan which includes Developing Career, Community, and Life Connections; Applying Problem-Solving Processes to Life Situations; Creating and Maintaining Healthy Relationships; Developing Strategies for Lifelong Career Planning; Developing a Financial Plan; Examining Components of Individual and Family Wellness; and Demonstrating Leadership within the Community. Critical thinking and practical problem solving are emphasized through relevant life applications. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Course Code	Course Title	9	10	11	12

8219	Independent Living	x	x	x	x
8227	Life Planning	x	x	x	x

Hospitality and Tourism Cluster

Introduction to Culinary Arts **Semester/Year**
Course No. 8250
The Introduction to Culinary Arts curriculum provides students with opportunities to explore career options and entrepreneurial opportunities within the foodservice 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. Students desiring to attend the Northern Neck Technical Center to enroll in the Culinary Arts program are encouraged to take this course.

Course Code	Course Title	9	10	11	12
8250	Introduction to Culinary Arts	x	x	x	x

Business Management & Administration Cluster

Accounting **Semester/Year**
Course No. 6320
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.
Recommended prerequisite(s): Keyboarding course(s) or teacher-approved demonstration and documentation of touch keyboarding skills; good math skills.

Principles of Business & Marketing **Semester/Year**
Course No. 6115
DE - RCC BUS100
Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and

investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options.

Business Management * **Semester/Year**
Course No. 6135
RCC: BUS 200
**Prerequisite: must have successfully completed Principles of Business & Marketing.*
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).

Business Law **Semester/Year**
Course No. 6131
Students examine the foundations of the American legal system and learn the rights and responsibilities of citizens. Students gain practical knowledge and life skills by exploring economic and social concepts related to laws governing business and individuals. Focus areas include contracts, consumer protection, criminal law, tort law, international law, family/domestic law, employment law, cyber law, and careers in the legal profession. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Office Administration **Semester/Year**
Course No. 6621
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. Prerequisite: keyboarding skills.

Course Code	Course Title	9	10	11	12
6320	Accounting		x	x	x
6115	Principles of Business & Marketing	x	x		
6135	Business Management		x	x	x
6131	Business Law		x	x	x

6621	Office Administration*		x	x	x

Economics and Personal Finance **Semester – 1 Credit**
Course No. 6120
DE RCC - ECON 100 & FIN 107
Instruction in economics and personal finance prepares students to function effectively as consumers, savers, investors, entrepreneurs, and active citizens. Students learn how economies and markets operate and how the economy of the United States is interconnected with the global economy. On a personal level, students learn that their own human capital (knowledge and skills) is the most valuable resource.

Mentoring/Internship Program

Work-Based Learning/Internship **Semester/Year**
Course No. 8120
Local Credit: P/F Grade
Work-based learning (WBL) Internship experience is a one credit 18/36 week course. It offers opportunities for students to apply and refine knowledge, attitudes, and skills through professionally coordinated and supervised work experience directly related to career goals. Members of the business, industry, and professional community volunteer to serve as mentors to high school seniors.

Work-based learning is a school-coordinated, coherent sequence of workplace experiences that are related to students' career goals and/or interests, are based on instructional preparation, and are performed in partnership with local businesses, industries, or other organizations in the community. WBL enables students to apply classroom instruction in a real-world business or service-oriented work environment.

To earn (1) credit, students must *spend a minimum of 140 hours* in an approved internship. *If the student is "released or quit" his/her internship, the student will receive an "F" for the Internship portion of WBL*. Each WBL student that has *early release must leave school grounds*, if not; they will be considered *trespassing*.

The goal of the Work-Based Learning Experience is to develop higher order thinking, problem-solving skills and enhance employability skills and work ethics.

NORTHERN NECK TECHNICAL CENTER COURSE OFFERINGS

**** Indicates Dual Enrollment Courses***

Agriculture, Food, & Natural Resources Cluster

Horticulture Sciences
Course No. 8034
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.

Greenhouse Plant Production and Management
Course No. 8035
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.

Landscaping
Course No. 8036
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 & Turf Management
Course No. 8039
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.

Architecture & Construction Cluster

Carpentry, Residential Construction I
Course No. 8515
Carpentry, Residential Construction II
Course No. 8516
This group of instructional programs prepares students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students develop skills in estimating costs; cutting, fastening, and fitting various materials; using hand and power tools; and following technical specifications and blueprints. Most importantly, students construct our current JOIST house, putting their skills to practical application.

Electricity I
Course No. 8533
Electricity II
Course No. 8544
With the growth of housing and industry, more appliances and electrical equipment are showing up in the environment and there has become a need for electricians and technicians to install, repair, and maintain these commodities. Residential wiring is the basis for all these areas that involve the transportation and use of electricity. This career can be continued in Community college or a job training program offered by many large industries.

Health Sciences Cluster

***Nurse Aide:** **One year program**
Course No. 8362
DE: RCC NUR 27/NUR 29/NUR 31
This is a college level course with dual enrollment at Rappahannock Community College. Nursing Assistant is a one-year program designed to help a student learn basic knowledge and develop skills necessary to become a nursing aide. In health care facilities, this work generally consists of bathing patients, tracking and recording vital signs and other duties that enable nurses to devote more time to work requiring professional and technical training. This program consists of theory and practice in the classroom setting, and clinical experience in the local nursing homes and hospitals. At the completion of this program, students will be eligible to take the State Board of Nurse's Aide Examination. This examination consists of both a written and manual test. Successful completion allows the student to be placed on the State Registry for Certified Nurse's Aides.

Hospitality and Tourism Cluster

***Culinary Arts I**
Course No. 8275
DE - RCC: HRI 115/HRI 106/HRI 218

***Culinary Arts II**
Course No. 8276
DE - RCC: HCI 128/HRI 134/HRI 145
The Culinary Arts courses are designed to prepare students for entering employment in food service occupations. They are college level courses with dual enrollment at Rappahannock Community College. A student can earn up to 16 college credits. The training program is particularly valuable because a major portion of the student's skill is acquired through actual cooking, study in the use and care of equipment, food standards and proper sanitation procedures, including public health aspects of food handling. It is a two-year program. Students may take a third year with emphasis on catering.

Human Services Cluster

Cosmetology I – Grades 11 and 12
Course No. 8527
Cosmetology II – Grades 12
Course No. 8528
Cosmetology is a two-year course. It provides training in manicuring, shampooing, permanent waving, facials, massages, scalp treatment, hair cutting, chemical relaxing and styling. A student who satisfactorily completes the two years of study in cosmetology at the center qualifies to take the State Board Examination to become a licensed cosmetologist. This course is restricted to eleventh and twelfth graders who should be ready to take the state board exam just after graduation from high school.

Information Technology Cluster

Computer Systems Technician I – Grades 11 and 12
Course No. 8622
Computer Systems Technician II – Grade 12
Course No. 8623
This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. A task analysis of current industry standards and occupational analysis was used in the development of the content standards. This two-year course begins with a focus on PC desktop repair and maintenance and the first year. Networking is stressed during the second.

Instruction includes, but is not limited to, safety, networking, networking terminology and protocols, network standards, LANs, WANs, OSI models, Ethernet, Token Ring, Fiber Distributed Interface, TCP/IP Addressing Protocol, Dynamic Routing, Routing, and the Network Administrator's role and function. Particular emphasis is given to the use of decision-making and problem solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems.

In addition, instruction and training are provided in the proper care, maintenance and use of networking software, tools and equipment, and all local, state and federal safety, building and environmental codes and regulations.

Transportation, Distribution & Logistics Cluster

Auto Body Repair I: Collision & Repair – Grades 11 and 12
Course No. 8679
Auto Body Repair II: Painting & Refinishing – Grade 12
Course No. 8680

The Collision Repair Technology course is designed to give training in automobile body repair, body construction, all types of collision repair including frame and wheel alignment, body panel repair and replacement, MIG welding, brazing, spot repairing and estimating.

Repair persons must be able to analyze correctly all types of body damage and restore vehicles to their original appearances. This is a two-year program, but students may return for a third year through special arrangements.

Auto Servicing Tech I – Grades 11 and 12
Course No. 8710
Auto Servicing Tech II – Grade 12
Course No. 8711

The Auto Technology program is designed to provide a thorough knowledge of the mechanics of the modern automobile and all its supporting systems, to develop an individual's mechanical ability, and develop interest in an automotive repair and service career. The curriculum is designed primarily for persons who seek full-time employment in the automotive maintenance and general repair field immediately upon completion of the two-year program. The course will develop the student's skills in the use of the most modern automotive repair tools and equipment.

For one to advance successfully in this program of study, a thorough understanding of the automobile, its basic operating principles, mechanical aptitude, and manual dexterity are required. The curriculum follows the standards of A.S.E. (National Institute for Automotive Service Excellence) and includes: engine performance, use of diagnostic equipment, the theory of computer-controlled automotive systems, electronic systems, and VA State inspections.

Marine Service Technology I – Grades 11 and 12
Course No. 8750
Marine Service Technology II – Grade 12
Course No. 8751
In this introduction to service and repair of watercraft and marina operations, students learn marine trade skills in areas including shop and boating safety, inboard and outboard systems, carpentry, electricity, and vessel storage/handling. The course is based on the National Marine Trades Curriculum, developed by the American Boat and Yacht Council (ABYC). The Marine Service Technology II course completes student's introduction to service and repair of watercraft and marina operations. Students gain entry-level marine trade skills in areas including inboard and outboard systems, carpentry, fiberglass construction and repair, electricity, welding, vessel storage/handling, and tools and equipment operation. The course is based on the National Marine Trades Curriculum, developed by the American Boat and Yacht Council (ABYC). Successful completers will receive a certificate from the ABYC.

ADDITIONAL MIDDLE SCHOOL INFORMATION

School Counseling Program and Services

The middle school years can be a difficult yet rewarding time for students and their families. As adolescents, they are seeking out their own identity, adjusting to more responsibilities, and are balancing increasing academic loads. Although typical ten to fifteen year olds will act as if they want complete independence, they really do seek and respect parent/guardian opinions. As middle school parents, it is highly recommended that you attend school events, meet the school counselor, talk with teachers, and learn more about the middle school program. Also, if you are ever concerned about your middle school student, professional school counselors are available to help students and parents navigate these "middle years." Middle school counselors are also instrumental in the academic success of students. They provide academic, career and personal counseling designed to meet the unique developmental stage of middle level learners. You will find that your building counselors utilize a variety of programs to engage all students including: classroom levels, small group sessions, individual counseling, and parent workshops.

School Social Work Services Available

School Social Workers provide support to families and students to enhance educational outcomes. School and community collaboration is a key component to achieving student success. School Social Workers are professional mental health providers who hold a Master's Degree in Social Work and a pupil personal license by the Department of Education to provide School Social Work services. Services provided by the School Social Worker at your school might include: Individual and/or group counseling; Various mental health assessments; Special Education interventions; Advocacy; Resource and Referrals; Community based support; Consultation Services.

Library Media Center

The goal of the Library Media Center is to support the Virginia Standards of Learning, provide students and staff with the necessary skills to become information literate, and to encourage reading for pleasure, academic research, and information. The media center provides access to information through a variety of resources including books, magazines and online resources. Library Media Specialists encourage students to use resources, both print and electronic, in a responsible manner. Library Media Specialists collaborate with teachers to realize these goals.

Family Life

The Family Life Program is designed to help students understand and adjust to the pressures of growing up. The program promotes a positive self-concept; develops communication and decision-making skills; helps students understand and cope with emotional growth and development; and promotes positive family and social skills to say "no" to relationships or substances that can be physically and emotionally harmful to them. Factual information addresses physical growth and development, reproduction, sexually transmitted diseases, child abuse, molestation, and the value of postponing sexual activity until marriage. The health and physical education teacher provide instruction on family life education during health class. Each school notifies parents prior to the beginning of family life instruction regarding the availability of the Family Life curriculum for

review at each school and the option to exempt a student from specified activities. An opt-out form is available from the school principal.

Report Cards
Report cards are mailed home and sent home with students at the end of each nine-week grading period. Letter grades are used on report cards except for those classes that are high school credit classes, where numerical grades are used.

Interim Reports
Interim reports are issued to all students at the halfway point of each grading period. When monitoring student progress, athletes may receive interim reports weekly or each two-week period to establish eligibility to participate in sports. Power School provides current information about student assignments, accomplishments and grades received. Parents are encouraged to log-in to Power School via the Parent Portal regularly to monitor progress. Parents are also encouraged to contact the child's teacher to follow up with concerns about their child's performance at school.

Middle School Course Expungement Policy
In general, a high school credit-bearing course taken at the middle school level may be removed from the student's transcript and the student will not earn high school credit for the course upon written request of the parent. Courses which are prerequisite to a course taken in high school cannot be removed (i.e., Spanish I must stay on the transcript if the student takes Spanish II later). While it is recommended that parents make this request in writing prior to the transfer of the student to the high school, the request can be made no later than the end of the junior year.

PROGRAM OF STUDIES PLANNING TEAM

Dr. Travis Burns, NHS Principal
Mrs. Javornda Ashton, NMS Principal
Mr. Kevin Ber, NHS Counselor
Mr. Howard Aderholt, Counselor
Mrs. Krista Sisk, NMS School Counselor
Mrs. Amy Lamb, Director of Instruction
Mrs. Shauna McCranie, Director of Gifted Education
Mr. Adam Letizia, Director of Special Education
Mrs. Jill Murray, Math Specialist