Secondary School Course Offerings

ACADEMIC OPTIONS 2015-2016

College, Career and Citizen-Ready!

www.nnschools.org  •  757-591-4500  •  12465 Warwick Blvd. Newport News, VA 23606
# Table of Contents

## Section I

- Education Plan .................................................................................................................. 1
  - High School Program Planning Information ................................................................. 2
  - Career Pathways ............................................................................................................. 5
  - Dual Enrollment .............................................................................................................. 6
  - Career and Technical Education ..................................................................................... 7
    - Industry Certification .................................................................................................. 7
  - General Information on Course Selection ..................................................................... 8
  - Advanced Placement (AP) ............................................................................................. 9
- High School Options .......................................................................................................... 10
  - Greater Peninsula Governor’s STEM Academy ............................................................. 10
  - The Governor’s School for Science and Technology ...................................................... 11
  - The International Baccalaureate (IB) Program ............................................................... 13
  - Early College Program in Newport News ..................................................................... 14
  - Magnet Schools ............................................................................................................ 14
    - Aviation Academy – Denbigh High School ................................................................. 14
    - Governor’s STEM Academy – Heritage High School ................................................. 15
    - University Magnet – Heritage High School ............................................................... 15
    - Governor’s Health Sciences Academy - Warwick High School ............................... 16
    - Arts & Communication Magnet – Woodside High School ........................................ 16
  - Summer Institute for the Arts .......................................................................................... 17
  - Point Option .................................................................................................................. 18
  - Virtual Learning Program .............................................................................................. 18
  - GED Options for High School Students ....................................................................... 20

## Section II

- Graduation Requirements (Policy IKF) ............................................................................... 21
  - Requirements for a Standard Diploma ........................................................................ 22
  - Requirements for an Advanced Studies Diploma ........................................................ 23
  - Requirements for Diploma Seals from the Board of Education ................................... 24
  - Governor’s Early College Scholars Program ................................................................. 25
  - Newport News Scholars Program ................................................................................ 26
  - Requirements for Other Diplomas ................................................................................. 27
- Course Credit ..................................................................................................................... 29
  - Grade Point Average and Class Ranking of Secondary Students .............................. 33
  - Secondary Grading Scale .............................................................................................. 34
### Section III

**Academic Options Guide for Students**

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Course Sequences</td>
<td>36</td>
</tr>
<tr>
<td>English Courses</td>
<td>38</td>
</tr>
<tr>
<td>Mathematics Courses</td>
<td>43</td>
</tr>
<tr>
<td>Science Courses</td>
<td>46</td>
</tr>
<tr>
<td>Social Studies Courses</td>
<td>50</td>
</tr>
<tr>
<td>World Language Courses</td>
<td>55</td>
</tr>
<tr>
<td>Art Courses</td>
<td>57</td>
</tr>
<tr>
<td>Music Courses</td>
<td>61</td>
</tr>
<tr>
<td>Theatre Courses</td>
<td>67</td>
</tr>
<tr>
<td>Health and Physical Education Courses</td>
<td>68</td>
</tr>
<tr>
<td>Military Science/Aerospace Science (Junior ROTC) Courses</td>
<td>73</td>
</tr>
<tr>
<td>Career &amp; Technical Education Courses</td>
<td>73</td>
</tr>
<tr>
<td>Aviation</td>
<td>73</td>
</tr>
<tr>
<td>Business</td>
<td>76</td>
</tr>
<tr>
<td>Health &amp; Medical Sciences Courses</td>
<td>79</td>
</tr>
<tr>
<td>Marketing</td>
<td>79</td>
</tr>
<tr>
<td>Television Production</td>
<td>81</td>
</tr>
<tr>
<td>Technology Education</td>
<td>82</td>
</tr>
<tr>
<td>Family and Consumer Sciences</td>
<td>85</td>
</tr>
<tr>
<td>Courses at New Horizons Career &amp; Technical Education Center</td>
<td>86</td>
</tr>
<tr>
<td>Additional Courses</td>
<td>92</td>
</tr>
<tr>
<td>Course Eligibility through Special Education</td>
<td>94</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
<td>99</td>
</tr>
<tr>
<td>The International Baccalaureate (IB) Program Course Offerings at Warwick High School</td>
<td>101</td>
</tr>
<tr>
<td>Studies in Language and Literature</td>
<td>101</td>
</tr>
<tr>
<td>Language Acquisition</td>
<td>101</td>
</tr>
<tr>
<td>Individuals and Societies</td>
<td>101</td>
</tr>
<tr>
<td>Experimental Science</td>
<td>102</td>
</tr>
<tr>
<td>Mathematics</td>
<td>103</td>
</tr>
<tr>
<td>The Arts</td>
<td>104</td>
</tr>
<tr>
<td>Additional Requirements</td>
<td>105</td>
</tr>
<tr>
<td>The Governor’s School for Science and Technology Course Offerings</td>
<td>105</td>
</tr>
</tbody>
</table>
Section
-1-
1. Refer to the Graduation Requirements in Section II of this guide.
2. Scan the Table of Contents and the rest of this guide to learn about your program choices.
3. Read carefully the courses and programs of interest.
4. List future courses in pencil and compare them to the graduation requirements that apply to you.
5. Answer the questions on the next page. Remember—This is a working copy! You can, and probably will, make changes as you progress.

### Grade 6
- **Year**: Year _____ – _____
- **English**: English
- **Math**: Math
- **Science**: Science
- **Social Studies**: Social Studies
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 7
- **Year**: Year _____ – _____
- **English**: English
- **Math**: Math
- **Science**: Science
- **Social Studies**: Social Studies
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 8
- **Year**: Year _____ – _____
- **English**: English
- **Math**: Math
- **Science**: Science
- **Social Studies**: Social Studies
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 9
- **Year**: Year _____ – _____
- **English**: English 9
- **Math**: Math
- **Science**: Earth Science or Biology
- **Social Studies**: Wd. Language or Elective
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 10
- **Year**: Year _____ – _____
- **English**: English 10
- **Math**: Math
- **Science**: Biology or Chemistry
- **Social Studies**: Wd. History or Wd. Language or Wd. Geography
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 11
- **Year**: Year _____ – _____
- **English**: English 11
- **Math**: Math
- **Science**: Wd. History or Wd. Language or Wd. Geography
- **Social Studies**: VA & US Gov’t
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans

### Grade 12
- **Year**: Year _____ – _____
- **English**: English 12
- **Math**: Math
- **Science**: Math or Science
- **Social Studies**: VA & US Gov’t or Wd. Language or Wd. Geography
- **Career Interests**: Career Interests
- **Educational Goals**: Educational Goals
- **Summer Plans**: Summer Plans
Colleges and employers look for more than a transcript of grades when considering an applicant. Although there are many ways to present yourself, the template below will help you to create a more attractive profile for the organization considering you as a student or employee.

**OBJECTIVE:** What do you want to do? What do you hope to achieve?

**SKILLS:** What can you do that makes you unique?

**CLUBS/ORGANIZATIONS:** To what organizations do you belong, and what leadership roles do you hold?

**WORK EXPERIENCE:** What jobs or internships (paid or unpaid) have you had? What responsibilities did you have at each?

**COMMUNITY SERVICE:** What have you done to help your community? i.e. working with the Red Cross, planning neighborhood gatherings, delivering campaign literature, etc.

**INTERESTS:** In what sports have you participated? What are your hobbies?
HIGH SCHOOL PROGRAM PLANNING INFORMATION

Preparation for College
All colleges have different entrance requirements. Before you select high school courses, check the requirements of several colleges that interest you. If you are undecided about a college, use the following guidelines in making your high school course selections.

1. Take four years of math and science. Most 4-year colleges require at least Algebra II for entrance.
2. Take at least three years of a world language. Many colleges do not list a world language requirement, but indicate that three or four years are highly desirable. Students wishing to take Advanced Placement French, German or Spanish as a senior must complete level I in the eighth grade.
3. Colleges prefer that students take the most challenging courses possible, pursue a full academic program for four years and demonstrate service to their community. Your course selections should be a reflection of your career pathway.
4. Students should take the PSAT in the 10th and/or 11th grade. If a four-year college is a part of your career pathway, then you should take the SAT in the 11th and/or 12th grade.
5. Always seek the advice of your school counselor.

Preparation for Employment
There are numerous opportunities in the Newport News Public Schools for students to prepare for entry into a career. In some cases, you may take a high school program that allows you to work in the afternoon and receive high school credit for your job. These programs are called cooperative education programs. Use the following general guidelines in choosing courses to prepare for employment.

1. Take Career and Technical Education (CTE) exploratory courses in the ninth and tenth grades to find out which program is most interesting to you.
2. Choose a CTE pathway that interests you and ask your teacher or counselor the order in which you should take the courses in order to gain the necessary skills to work in that occupational area. In most cases, you will need to be enrolled in courses for at least two years to complete the program.
3. Plan your program to include the courses necessary to gain occupational skills and certifications. Also, include other courses that may be related to your chosen career pathway.
Career Pathways
The courses that you take in high school can have an effect on the choices that you make towards career pathways. This guide to high school courses has been prepared so that you will have a firm idea of what the courses offer, what careers they may lead to and the possible effects on your future plans. As you select your courses, we urge you and your parents to explore all of your academic options.

In order to help you make the best possible choices as you plan the courses you will take, the school system has launched the Career Pathways initiative. This program will guide you in selecting school courses, activities, and learning experiences that allow you to see the relationship between your classes and future careers. Career Pathways will assist you in setting goals and help prepare you for the future by building on your personal strengths, abilities and interests.

Pathways are comprised of interrelated courses, as well as curricular, extra-curricular and service learning experiences.

For a complete list of all available career options, see your school counselor or explore the Career Pathways website at http://sbo.nn.k12.va.us/careerpathways/.

---

How Should I Make Career Choices?

You can start by exploring career choices through the Career Pathways initiative. Each career pathway provides you with a plan and the skills to enter a career.

Planning your career choice will help increase your income power, develop your skill level and improve your opportunities for success as an adult.

Consider the challenges you will face: global competition, evolving technology, diverse demographics and changing values and attitudes. Think about your strengths and weaknesses and your likes and dislikes. Then, make a choice.

HOW TO BECOME MORE AWARE OF CAREER CHOICES
• Talk with your family, teachers and counselors about the subjects you enjoy most.
• Speak with your family, teachers and counselors about applying your interests to a career you might enjoy.
• Discuss with your family about increasing your responsibilities for jobs around the house.

HOW TO EXPLORE AVAILABLE CAREER CHOICES
• Schedule with your guidance counselor a career interests, abilities and talents survey.
• Think about how you can apply what you are learning in school to career choices.
• Look at postsecondary education and training options with your family.
• Visit college campuses and career fairs.
• Develop an Individual Course Plan (ICP) with your guidance counselor to help you establish a career pathway.
• Study the Career Pathways chart and save it for future use.

HOW TO TAKE ADVANTAGE OF CAREER DEVELOPMENT OPPORTUNITIES
• Pay attention to what you are learning in class and how it might apply to your career choices.
• Enroll in electives that allow you to experience the details of career choices.
• Enroll in courses that offer college credit, dual enrollment or Advanced Placement.
• Apply for work-based learning opportunities such as job shadowing, internships, apprenticeships and cooperative education.
• Visit college campuses and continue visiting career fairs.
**Dual Enrollment**

In partnership with Thomas Nelson Community College (TNCC), high school juniors and seniors may be eligible to receive college credit for courses taken in Newport News Public Schools. In order to dual enroll with Thomas Nelson, students must

1. apply online to TNCC at [www.tncc.edu/apply](http://www.tncc.edu/apply),

2. test for eligibility or provide SAT, ACT, PSAT, or Math SOL scores. Qualifying scores for admission to the program can be found at [http://tncc.edu/students/opportunities/dual-enrollment-tncc/](http://tncc.edu/students/opportunities/dual-enrollment-tncc/). Thomas Nelson provides the Virginia Placement test at no charge to students. It is very important to take the placement test seriously and practice beforehand. Practice is available on TNCC's website at [http://tncc.edu/students/become-a-student/placement-testing/](http://tncc.edu/students/become-a-student/placement-testing/)

   • Students wishing to take MTH 163, 164, 173, 174, 180, 240, 277, 285; CHM 111, 112; PHY 241, 242 must take the math placement test regardless of standardized test scores. These courses are generally offered at the Governor's School for Science and Technology.

3. submit a Dual Enrollment College Registration Form by the registration deadline to your teacher. The courses listed below are currently offered for dual enrollment at NNPS, however not all courses are taught in all schools.

Students who complete dual enrollment courses receive credit toward high school graduation as well as college credit on an official Thomas Nelson Community College transcript. These credits may be used to continue college at TNCC, or transfer to other Institutions. For more information regarding dual enrollment opportunities, contact your school counselor for course and teacher availability.

**Note:** Courses must have a dual enrollment approved teacher to receive TNCC credit, and are subject to change.

<table>
<thead>
<tr>
<th>TNCC Courses</th>
<th>College Credits Earned</th>
<th>NNPS High School Course Name</th>
<th>NNPS Program Area &amp; Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACADEMIC COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 283</td>
<td>3</td>
<td>Computer Art II</td>
<td>AR1200</td>
</tr>
<tr>
<td>ENG111</td>
<td>3</td>
<td>AP Language &amp; Composition</td>
<td>English – EN3300</td>
</tr>
<tr>
<td>ENG 112</td>
<td>3</td>
<td>Honors English 12</td>
<td>English 12 – EN4100</td>
</tr>
<tr>
<td>MTH 163, 164</td>
<td>6</td>
<td>Honors Mathematical Analysis</td>
<td>Math – MA4100</td>
</tr>
<tr>
<td>MTH 240</td>
<td>3</td>
<td>AP Calculus</td>
<td>Math – MA4200, MA4300</td>
</tr>
<tr>
<td>HIS 121, 122</td>
<td>6</td>
<td>AP US History</td>
<td>Social Studies – SS3300</td>
</tr>
<tr>
<td>PL 135</td>
<td>3</td>
<td>AP US Government</td>
<td>Social Studies – SS4300</td>
</tr>
<tr>
<td>BUSINESS COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST 101</td>
<td>3</td>
<td>Digital Input Technologies DIT</td>
<td>Business &amp; Information Technology – BU0109</td>
</tr>
<tr>
<td>BUS 100</td>
<td>3</td>
<td>Principles of Business and Marketing</td>
<td>Business &amp; Information Technology – BU1100</td>
</tr>
<tr>
<td>TECHNOLOGY EDUCATION &amp; ELECTRICAL COURSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD 151</td>
<td>3</td>
<td>Engineering Drawing</td>
<td>Technology Education – TE0200</td>
</tr>
<tr>
<td>ELE 150</td>
<td>3</td>
<td>Electronics Technology</td>
<td>Trade &amp; Industrial – AV4200</td>
</tr>
</tbody>
</table>
Career and Technical Education
In Newport News, Career & Technical Education (CTE) serves students in grades 6-12 and provides learning experiences in seven program areas:

- Business & Information Technology
- Family & Consumer Science
- Health
- Marketing
- Technology Education
- Trade & Industrial
- Military Science

These seven program areas offer over 60 different courses in some of the top career areas that exist globally. CTE students learn academic concepts in an applied instructional setting, which prepares them for success and enhanced earning potential in their chosen career fields. This instruction allows students to receive postsecondary education credits while completing their high school diploma requirements. Students participating in these dual enrollment and industry certification programs gain fundamental knowledge that facilitates a smooth transition into a college setting.

Industry Certification
All CTE courses prepare students for the possible Career and Technical Education Consortium of States (CTECS) Workplace Readiness certification. This is a customized certification based on Virginia’s essential 21 Workplace Readiness Skills embedded in all CTE high school course frameworks.

Business
The following computer courses prepare students for possible Microsoft Office Specialist (MOS) and Internet and Computing Core Certification (IC3):

- Computer Information Systems
- Digital Input Technologies
- Advanced Computer Information Systems
- Design, Multimedia, and Web Technologies
- Information Technology Fundamentals

The following course prepares students for possible W! SE Financial Literacy Certification: Economics & Personal Finance.

Family & Consumer Science
The following courses prepare students for possible Broad Field Family and Sciences Certification sponsored by the American Association of Family and Consumer Sciences (AAFCS):

- Nutrition & Wellness
- Parenting & Family Relations
- Introduction to Culinary Arts

Marketing Education
The following courses prepare students for possible National Retail Federation Certification:

- Advanced Marketing
- Marketing Management
- Hotel/Motel Marketing
Technology Education
The following course prepares students for possible Autocap and Revit Certification:
• Electronics II
• Technical Drawing
• Architectural Drawing

Trade & Industrial Education
The following courses prepare students for possible A+, N+, or the Microsoft Technology Associate:
• Computer Systems Tech I & II

General Information on Course Selection
1. Every high school student makes a 4-year educational plan in the 9th grade that will lead to a career pathway. A copy of this plan is kept in the school counseling office and a copy is sent home to the parents. You should review and update your 4-year educational plan before making any course selections for the following year. Use the Educational Plan form in this booklet as a guide.

2. Review carefully the course descriptions included in this guide. Share the information with your parents. If they have any questions regarding the courses or your course selections, they should contact your school counselor.

3. All students must carry a full schedule of classes.

4. Two Courses in the Same Subject Area (Policy IIE)

A student will not be permitted to take two (2) required English courses at the same time except as permitted in this paragraph. If a student fails one semester of a required English course, the student will repeat that semester while enrolled in the next required course. A student who fails both semesters of a required English course will be required to repeat both semesters of the course before progressing to the next level. Students may take two English classes during the fourth year of high school if successful completion of the resulting schedule satisfies the requirements for graduation.

Initial enrollment for a required English class will be permitted only during the regular school term. A student will not be permitted to register for a required English course for the first time in summer school.

Students may be permitted to take U.S. History and Government at the same time; however, students should be encouraged and advised to take Virginia and U.S. History prior to taking Virginia and U.S. Government.

5. The school division offers several Biology II courses, many of which are semester courses with .5 additional credits. A student may use only one Biology II credit towards science requirements for graduation. If a student earns more than 1 credit in Biology II courses, he/she will receive elective credit for anything beyond 1 credit.

6. The deadline for enrolling in a new course is through the third week of the first nine weeks of any semester.
7. NCAA

A student athlete who wishes to play sports at the college level must plan carefully, starting in the ninth grade, to ensure that he/she has met the high school requirements for eligibility to play sports in college. Student athletes preparing to participate in Division I or Division II college athletics should inform their school counselor and must register with the NCAA Clearinghouse. Applications are available in the school counseling office.

Advanced Placement (AP)

The Advanced Placement (AP) Examinations Program is a service provided by College Board. High school students may take college-level examinations each spring and, depending upon their scores, may be awarded college credit and/or advanced placement at participating colleges and universities. All NNPS students who take AP courses must take the corresponding AP test in order to earn the full weighted credit for the course. Newport News Public Schools will pay for AP tests to be given to all students enrolled in appropriate courses.

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

Students enrolled in an AP course must work at an AP level throughout the course and put forth their best effort on the tests to be successful. The benefits of taking Advanced Placement courses include:

- getting a head start on college-level work
- improving writing skills and sharpening problem-solving techniques
- developing the study habits necessary for tackling rigorous course work
- studying subjects in greater depth and detail
- the opportunity to earn credit or advanced standing at participating colleges and universities.

Visit the College Board website for more information: https://apstudent.collegeboard.org/home.
HIGH SCHOOL OPTIONS
Students attending high school in Newport News have many options for study as they prepare for college and careers. Programs at the high school level develop both a strong foundation of general knowledge and skills and specialized competency in areas in which students have particular interests.

All Newport News high schools offer a comprehensive program to prepare students for work or further study at a college, university or technical program. Courses are offered in English, social studies, math, science, world languages, fine arts, physical education and many occupational specialties. All high schools offer Advanced Placement (AP) instruction and accelerated classes as well as a wide choice of athletics and other activities. Career and Technical Education (CTE) courses at all high schools offer a program that links academic and occupational studies. All NNPS high schools have met or exceeded the standards for full accreditation by the state of Virginia.

Newport News Public Schools offers the following types of high schools:
1. comprehensive schools – provide a complete and well-balanced educational program and serve children in specific neighborhoods or attendance zones
2. specialty academies – serve special needs of particular groups of students and have specific entrance requirements
3. magnet schools:
   • offer a specialized focus in the curriculum or distinctive type of environment or instruction
   • serve children from across the city (every child is eligible to apply)
   • are designed to maintain the racial balance of the student body

Greater Peninsula Governor’s STEM Academy
The Greater Peninsula Governor’s STEM Academy (formerly GAITE) was selected by the Department of Education in 2008, to implement the new “Governor’s Academy for Career and Technology Education.” This initiative is to prepare innovators and technologists for Virginia’s workforce, especially in the area of Science, Technology, Engineering and Mathematics (STEM). The Greater Peninsula Governor’s STEM Academy is designed to provide an academy focused on advanced academic and technical skills in each of the six Greater Peninsula school divisions. Its focus is in Engineering Technology and Information Technology. The Greater Peninsula Governor’s STEM Academy involves partners from education, business, postsecondary education and non-profit organizations.

The Greater Peninsula Governor’s STEM Academy offers courses of study in two career pathways: Engineering Technology and Information Technology. These are high growth and high compensation occupations within Hampton Roads and for the Commonwealth of Virginia. The academy provides three levels of enrichment activities; Exploratory Saturdays (7th and 8th grade), Academic Preparation (9th and 10th grade) and Advanced Academics and Technical Training (11th and 12th grade). Academy courses may be offered at divisional high schools and/or at New Horizons Regional Education Centers (NHREC).

Contact the Career and Technical Education Supervisor at 757-283-7850 for more information, to learn more about GPGSA and the requirements, divisional course pathways and enrichment opportunities that may lead to a career in Engineering Technology and Information Technology.
The Governor’s School for Science and Technology

The Governor’s School for Science and Technology (GSST) at New Horizons Regional Education Center is operated by Gloucester, Hampton, Newport News, Poquoson, Williamsburg-James City County and York County Schools. In keeping with their 25 year history of providing a distinguished science curriculum to the region’s gifted high school students, the Governor’s School provides a cohesive, innovative science and mathematics program that does the following:

- Embraces quality programming standards for gifted students recommended by the Virginia Department of Education and the National Association for Gifted Children
- Provides a cohesive sequence of courses in science, research, and mathematics
- Provides opportunities for social peer interaction, as well as career and college
- Provides leadership education and opportunities throughout the program.

The Governor’s School is a two-year, half-day program for 11th and 12th graders. Additional courses will be taken at the home high school to complete an Advanced Diploma degree. Each strand provides a unique emphasis on both the science subject matter and associated career fields. Students will be able to participate in one of the following three strands:

- The **Engineering Strand** involves an intense, rigorous study of fundamental principles of engineering and calculus-based physics.
- The **Biological Science Strand** provides insights into organic and inorganic chemistry in conjunction with cell and molecular biology by employing advanced technologies utilized in medicine, forensic science and research labs.
- The **Scientific Programming Strand** combines the study of structured and object-oriented programming with applications in practical, non-calculus based physics scenarios.

With small class sizes and advanced-degreed faculty, the learning environment at the Governor’s School is truly unique. Each course has been specifically structured to incorporate best practices for gifted students. Each strand requires completion of one year of high school biology, one year of high school chemistry and Algebra II/Trig prior to admission. For the engineering strand, students must have successfully completed Math Analysis (Pre-Calculus) prior to admission. All strands encompass a math course during both the junior and senior year. Placement in the appropriate math course will be determined upon admission at the end of 10th grade. In addition, each strand will foster research through a Research Methods and Ethics course the junior year and an Honors Research and Mentorship placement the senior year.

In total, students will spend approximately three hours daily at the Governor’s School, taking three courses each year during the two-year program.

**Scientific Research Experience**

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

- The junior year research experience involves:
  - various aspects of research methodology,
  - ethics and statistics,
  - critical thinking skills,
  - scientific writing and communication skills and
  - a research project for submission to the Tidewater Science Fair.
- During the senior year, students participate in an Honors Research and Mentorship experience with a professional. Final projects are presented to the local scientific and professional community as a culminating experience in May. The opportunity to work with a professional in research is an invaluable experience toward career pursuits.
**Applied Leadership**
A variety of school activities, clubs and competitions provide students with opportunities to cultivate their leadership skills. Social interaction and community building are integral components of the program. The Student Advisory Board provides another opportunity for students to lead their peers in the organization of the program and school travel activities.

**Admissions Procedures**
Admission to the program is highly competitive. Test scores, teacher recommendations and course grades will be used to determine which students will be invited to participate in the Governor’s School Pre-Admissions Series offered in 9th and 10th grade. Designated students will take prerequisite courses offered at their high schools and will participate in informational sessions that will acquaint them with and prepare them for the two-year program. Final acceptance into the Governor’s School in the spring of their 10th grade year will be dependent on math and science GPAs, teacher recommendations and PSAT scores.

See the available courses for The Governor’s School for Science and Technology program in this guide.

For more information, visit the GSST web site at [www.nhgs.tec.va.us/governorsschool/](http://www.nhgs.tec.va.us/governorsschool/) or call 757-766-1100, ext. 3313.

**The Pre-Admissions Series Program (PAS) for Students Entering 9th and 10th Grade**
The Pre-Admissions Series Program is a program for high-achieving students who are seriously considering attending the Governor’s School for Science and Technology. The PAS series is comprised of informational sessions, which taken together, will provide guidance to prospective GSST parents and students on how students can prepare themselves in 9th and 10th grade to gain acceptance and achieve success at both GSST and a competitive college. This PAS program aims to educate those students and their parents about:

- The program model of the GSST.
- The features of each of the three academic strands.
- The course prerequisites necessary for acceptance into each strand.
- How students can develop their talents in the classroom and beyond.
- How students can maximize their success in competitive college admissions.

**How Do Students Apply?**
Students can apply to the PAS in winter of their 8th or 9th grade year. Interested 8th or 9th grade students considering the PAS should complete an application and return it to their school counselor. Admission is highly competitive. Test scores, teacher recommendations and course grades are used to determine which students will be invited to participate in the PAS during their 9th or 10th grade years. Designated PAS students will take prerequisite courses offered in their high schools and will participate in a variety of activities that will acquaint them with GSST. If students and their parents decide that the GSST is a good match for their interests, they will submit a formal application to the GSST in their tenth grade year.

For more Pre-Admissions Series (PAS) information, visit [http://www.nhgs.tec.va.us/governorsschool/preadmissions.php](http://www.nhgs.tec.va.us/governorsschool/preadmissions.php) or call 757-766-1100, ext. 3313.
The International Baccalaureate (IB) Program
The International Baccalaureate Diploma Program at Warwick High School in grades 11 and 12 is an internationally recognized course of study. The rigorous coursework is designed to provide students with a well-rounded education and to facilitate geographic and cultural mobility.

While the International Baccalaureate (IB) program provides a two-year curriculum and students could apply during their sophomore year, students generally apply for participation in Pre-Diploma classes in grades nine and ten. The course of studies for the first two years prepares students for this rigorous academic program.

Beginning in the junior year, IB students take weighted, college-level courses leading to IB exams. Other requirements of the IB Diploma include a 4,000-word essay and participation in extra-curricular or community service activities. Students interested in the IB Diploma program should complete level I of a modern world language and take algebra or geometry in eighth grade.

Transportation to Warwick High School is provided by the school division for all IB students.

Students sit for international assessments and, where appropriate, Advanced Placement (AP) exams to assist them in earning advanced standing or college credit. Many colleges recognize the IB program and offer academic credit for those who score well on the IB examinations.

The IB Program offers special features in addition to the traditional strengths of a liberal arts curriculum.

Theory of Knowledge (TOK)
TOK is a required interdisciplinary course intended to stimulate critical reflection upon the knowledge and experience gained inside and outside the classroom. TOK challenges students to question the bases of knowledge, to be aware of subjective and ideological biases and to develop a personal mode of thought based on analysis of evidence expressed in rational argument. The key element in the IBO's educational philosophy, Theory of Knowledge seeks to develop a coherent approach to learning which transcends and unifies the academic subjects and encourages appreciation of other cultural perspectives.

Creativity, Action, Service (CAS)
CAS is a fundamental part of the diploma curriculum. The CAS requirement takes seriously the importance of life outside the world of scholarship, providing a refreshing counterbalance to the academic self-absorption some may feel within a demanding school program. Participation in theatre productions, sports, and community service activities encourages young people to share their energies and special talents while developing awareness, concern, and the ability to work cooperatively with others. The goal of educating the whole person and fostering a more compassionate citizenry comes alive in an immediate way when students reach beyond themselves and their books.

Extended Essay
Diploma candidates are required to undertake original research and write an extended essay of some 4,000 words. This project offers the opportunity to investigate a topic of special interest and acquaints students with the kind of independent research and writing skills expected at a university. There are currently 64 subjects, including 36 in the languages area, in which the essay may be written.

See the available courses in the International Baccalaureate (IB) program in this guide.

For more information about the IB program, visit the program’s website at: http://warwick.nn.k12.va.us/ib/.
Early College Program in Newport News
The Early College Program is a partnership between Newport News Public Schools and Thomas Nelson Community College. The program is offered to qualified high school seniors in Newport News Public Schools who are prepared and interested in accelerating their coursework toward a college degree after they graduate from high school. The courses offered within this program are all part of the Commonwealth College Course Collaborative, whereby Virginia public colleges and universities have agreed to accept transfer credit for these courses as part of their college's general educational requirements.

Who is eligible?
- Students who are able to complete all high school Advanced Diploma requirements by the end of the first semester of their senior year.
- Students who successfully place into TNCC’s English 111 (College Composition I) and English 112 (College Composition II) through the TNCC placement test, and successfully complete both courses with a grade of "C" or better during the first semester of their senior year.
- 3.0 minimum grade point average

What are the benefits?
- Provides students the opportunity to earn up to 19 transferable college credits at a reduced tuition rate
- Reduces the amount of time needed to earn a college or university degree
- Textbooks are provided by NNPS
- Transportation is provided by NNPS
- A Newport News Public Schools academic advisor is housed on the campus of TNCC
- Academic support is available to each student by NNPS and TNCC
- Students may participate in their high school's extra-curricular activities while attending TNCC

Website: [http://www.nnschools.org/earlycollege/](http://www.nnschools.org/earlycollege/)

Magnet Schools
In addition to the comprehensive curriculum, students can apply to magnet programs, which allow them to focus more intensely on their career and academic interests. These programs include the fine arts and communications magnet at Woodside High School, the Governor’s STEM Academy at Heritage High, the University magnet at Heritage and the Aviation magnet at Denbigh. **Students must apply to magnet programs.** Transportation is provided to all programs.

For a complete guide to the magnet process and more information, please see your school counselor or visit [http://sbo.nn.k12.va.us/magnet/](http://sbo.nn.k12.va.us/magnet/).

Aviation Academy – Denbigh High School
Distinctive Features
- "Airport campus" where students take three to six classes; all other classes are conducted at Denbigh High School
- Small community of learning with a collegiate atmosphere
- English, world geography, earth science, algebra or geometry, and aviation technology taught by Freshman Aviation Team teachers at the airport campus
- Physics taught as a requirement in 10th grade
- Aviation technology classes offered in pre-engineering subjects: physics, electricity, materials, fluids, pneumatics and aircraft design
• An FAA Pilot Ground School course offering flying lessons for private pilot licensure
• Advanced computer classes including Computer Systems, leading to A+ certification, and Electronics I & II offered in a state-of-the-art lab. All courses offer dual enrollment with Thomas Nelson Community College for college credit.

Website: http://avi.nn.k12.va.us/

**Governor's STEM Academy – Heritage High School**
Students at the Governor's STEM Academy at Heritage High School may take courses in the following program areas:
• Engineering and Electronics
• Architectural/Engineering Design
• Computer Systems Technology
• Modeling and Simulation

**Distinctive Features**
Students will:
• Gain a deeper understanding of the skills and knowledge incorporated in their fields of study
• Benefit from specialized, project-based courses which develop critical-thinking, problem-solving and decision-making skills, preparing them for the 21st century world
• Acquire greater communication skills
• Develop workplace readiness skills
• Receive opportunities to earn industry certifications preparing them to be more competitive in the work force and when applying to advanced training schools or postsecondary institutions
• Obtain meaningful, real-life, hands-on experiences in their career pathway
• Profit from opportunities for internships, mentorships, job shadowing, and cooperative education, which provide students with advantages when entering postsecondary education and/or the workplace

Website: http://heritage.nn.k12.va.us/about.html

**University Magnet – Heritage High School**
Students may take courses in the following program areas:
• Arts and Humanities
• Behavioral and Social Sciences
• Business/Marketing
• Math and Computer Science
• Natural Sciences
• Visual Arts

**Distinctive Features**
Students will:
• Acquire an Advanced Studies Diploma.
• Complete at least six (6) honors and/or Advanced Placement classes upon graduation with a minimum of two Honors and/or AP class completed each year.
• participate in community service, job shadowing and internships, and other leadership activities
• profit from partnerships with business, higher education, professional and other groups

Website: http://heritage.nn.k12.va.us/about.html

Governor's Health Sciences Academy - Warwick High School
Students at the Governor's Health Sciences Academy at Warwick High School may take courses in the following program areas:
• Therapeutic Services
• Support Services
• Diagnostic Services
• Health Informatics
• Biotechnology Research and Development

Distinctive Features
• Gain a deeper understanding of the skills and knowledge incorporated in their health sciences fields of study
• Benefit from specialized, project-based courses which develop critical-thinking, problem solving and decision-making skills, preparing them for the 21st century world
• Acquire greater communication and collaborative skills
• Develop workplace readiness skills
• Receive opportunities to earn industry certifications preparing them to be more competitive in the workforce and when applying to advanced training schools or postsecondary institutions
• Obtain meaningful hands-on experiences in their career pathway studies
• Benefit from opportunities for internships, mentorships, clinical, and cooperative experiences, providing the student with an advantage when entering postsecondary education and/or the workplace.

Website: http://warwick.nn.k12.va.us/

Arts & Communication Magnet – Woodside High School
Students may specialize in:
• Music – theory, musicianship, performing, composing, arranging
• Dance – with emphasis on ballet and modern dance, choreography, and dance history and theory
• Drama – acting, directing, producing, stagecraft, scenery, lighting, costumes
• Creative writing – create original poetry, prose, essays, scriptwriting, historical fiction and critical reviews
• Communications – journalism, production, engineering and technology and public relations
• Visual arts studio – painting, printmaking, drawing, ceramics, sculpture, mixed media
• Visual arts technology – computer art, video as art, web design
• Visual arts photography – darkroom and digital.
Distinctive Features
- Arts instruction at a depth, level, and rigor not found in other Newport News high schools
- Opportunities to pursue an intensive study of the arts to enhance the student’s overall academic program
- Chance to work and study with arts professionals
- Interdisciplinary study linking the arts with other disciplines
- Creative writers experience one-on-one conferences, peer evaluations, group readings, visiting authors and the Writing Center

Website: http://woodside.nn.k12.va.us/magnet.html

Summer Institute for the Arts
The Newport News Summer Institute for the Arts (SIA) offers an intensive six-week program in dance, drama, music and visual arts each summer. Students are selected by a panel of area artists and educators based on written applications, auditions, review or portfolios and interviews.

The Institute is normally held at Woodside High School with specialty workshops held throughout the city. Tuition is charged and will be announced in the spring. Classes normally meet 8:00 a.m. – 3:00 p.m., Monday through Thursday, June through August (specific dates to be announced). The staff consists of practicing artists, university staff and local educators.

Students, from rising eighth graders to high school seniors, residing in Newport News are eligible for the program. Students will receive one weighted credit (+.5 value) for completing an Institute course.

Students may pick up application forms and audition information from any fine or performing arts teacher or from the school counseling office in the spring. Completed applications must be returned to the school counseling office sometime in March, and auditions are usually in April. For more information, please call 757-591-4561 or 757-591-4911.

Institute Programs
Dance – Students will study ballet, jazz and modern dance. Course work will include dance history, a survey of dance forms and a study of pivotal performers. Workshops will be offered in folk and ethnic dance, character dance, improvisation and personal grooming for dance activities.

Visual Arts – Students will be given concentrated instruction and experiences in drawing as the basis for all other art skills. Art history and appreciation, including instruction and field trips to area galleries and museums will be included. Workshop opportunities in painting, sculpture, computer graphics and other media will be offered.

Music – The program will include instruction and performance in vocal or instrumental music. Additional studies will include music theory, the evolution of music, composition and arranging. Workshops in conducting, opera, musical theater, electronic music, recording techniques, career opportunities and related areas will be offered.

Drama – Students will receive advanced level instruction in voice, diction, stage movement, stagecraft and design, character development and acting. Workshops in stage combat, mime, improvisation, Shakespeare, musical theater, summer theater, puppetry, auditioning, lighting and set design, directing and careers in drama will be offered.
Program Objectives
• To develop the unique talents of students
• To provide a forum for the display of student’s works
• To enhance student’s abilities to analyze, interpret and evaluate the arts
• To increase student’s awareness of career opportunities in the arts

Point Option
The Point Option High School program began in 1973 and offers a unique opportunity for students in grades 9-12 to experience teaching and learning in a non-traditional way. It also offers students of ability and determination a “second chance” to recapture credits and/or to accelerate their graduation to enter the workforce or postsecondary education. As a small teaching and learning community of 90-100 students, Point Option emphasizes personal responsibility and self-reliance as keys to student success. Students choosing to attend will be held to the highest ethical and behavioral standards.

The program is dedicated to the education of the whole person while offering youth who struggle to fit into the comprehensive high school environment a viable opportunity for success.

Point Option is a “school of choice” requiring an application process. It differs from the comprehensive high school by offering smaller class sizes, flexibility in scheduling students, distance learning opportunities, weekly science field trips, an on-site fitness center, an outdoor education program, and daily scheduled teacher-led tutoring sessions in all subject areas both during and after school. Students in good standing may remain at Point Option to complete all graduation requirements while receiving their diploma from their zoned school upon completion of those requirements.

Admission Process
Students must complete and submit an application for admission and attend an interview with the Principal and School Counselor. Students are selected based on these factors:
• The capability to be academically successful
• Appropriate school and social behavior

The online application can be found at http://pointoption.nn.k12.va.us/ in the “Families” section.

Virtual Learning Program
The Virtual Virginia Advanced Placement Online School is offered to Newport News Public School students using distance learning technologies. The full-year courses are designed in conjunction with the College Board and the Advanced Placement Program. The Virtual Advanced Placement School (VAPS) provides the flexibility of scheduling an Advanced Placement course anytime during the school day and online students may be enrolled in a class with students from other high schools or other school divisions. Each Newport News high school will determine what courses are available for a student to take.
Besides being academically prepared for the rigor of an AP course, students taking an online AP course need to have the following traits for success:

- Self-motivated to keep up with course work with minimal supervision
- Able to communicate through writing
- Able to stay on task
- Able to meet deadlines
- Willing to ask for assistance when needed
- Comfortable with computer usage including keyboarding skills, knowledge of email and using a web browser
- Able to think ideas through before responding
- Believe that high quality learning can take place without going to a traditional class

All online AP courses use the Desire2Learn (D2L) web portal software. Within Desire2Learn, course materials may include video segments, audio clips, whiteboard, online discussions and online reflective journals. Many courses also include traditional textbooks as a part of the learning materials.

The school provides computer access during school hours and after school. Although a home computer and Internet access are not a requirement, it is strongly encouraged. All courses are available 24 hours a day.

Students attending Newport News Public Schools may enroll and take the online AP Courses.

<table>
<thead>
<tr>
<th>Online Advanced Placement Courses</th>
<th>Full Year/1 credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP Art History</td>
<td>AP Environmental Science</td>
</tr>
<tr>
<td>AP Biology</td>
<td>AP French Language</td>
</tr>
<tr>
<td>AP Calculus AB</td>
<td>AP Human Geography</td>
</tr>
<tr>
<td>AP Calculus BC</td>
<td>AP Physics B</td>
</tr>
<tr>
<td>AP Chemistry</td>
<td>AP Psychology</td>
</tr>
<tr>
<td>AP Government &amp; Politics: Comparative</td>
<td>AP Spanish Language</td>
</tr>
<tr>
<td>AP Government &amp; Politics: U.S.</td>
<td>AP Statistics</td>
</tr>
<tr>
<td>AP English Literature and Composition</td>
<td>AP U.S. History</td>
</tr>
<tr>
<td>AP English Language and Composition</td>
<td>AP World History</td>
</tr>
</tbody>
</table>

For more information, see your school counselor or visit the Virtual Virginia website at http://www.virtualvirginia.org/.
GED Options for High School Students

While Newport News Public Schools would like to see all students graduate with a standard diploma, we realize that some students face challenges that make it difficult to meet that goal. As students become older and encounter circumstances that put them behind in their studies, they may begin to see graduation as an unreachable goal. Some students think about dropping out; however, NNPS would like these students to consider other options for gaining a high school credential.

If a standard diploma is no longer a realistic goal for you, please consider the General Educational Development (GED) program. The GED is recognized by over 90% of employers and accepted by a majority of colleges and universities. It is considered the equivalent of a high school diploma in many states. Those students who are at least 16-18 years of age and significantly behind in their progress toward graduation should consider an Individual Student Alternative Education Plan (ISAEP). GED instruction is available to Newport News Public Schools students through an ISAEP. Parental/guardian permission is required if under the age of 18.

To enter the high school GED program, students must complete an application and take a battery of 4 computer based tests consisting of: science, social studies, math and reasoning through language arts. Sixteen year old students must score a minimum of 145 in 3 subjects and a minimum of 140 in the fourth subject, as well as a 7.5 on the TABE reading test before entering the ISAEP program.

For answers to your questions about the program, contact your guidance department or the Coordinator of Dropout Recovery, Jane Moreland, at 757-928-6765, ext. 38840.
GRADUATION REQUIREMENTS (POLICY IKF)

To graduate from high school, a student will meet the minimum requirements set forth by the Virginia Department of Education.

Requirements for a Standard Diploma

To graduate with a Standard Diploma, students must earn 22 standard units of credit described in the table below, and of the standard units of credit earned, students will earn the following number of verified units of credit: English-two; math-one; science-one; history/social science-one; and one additional verified unit of credit of the student’s own choosing.

1. Students who complete the requirements for a standard diploma with a cumulative grade point average of 3.60 or better at the end of their senior year will receive a Board of Education Seal on the diploma.

Credits Required for Graduation with a Standard Diploma

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

1. Earn a board-approved career and technical education credential. The credential could include, but not be limited to, the successful completion of an industry certification, state license exam, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.

2. Successfully complete one virtual course, which may be non-credit bearing.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Units of Credit</th>
<th>Units of Credit Beginning with 9th Graders 2011-2012</th>
<th>Number of these Required to be Verified</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics¹</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Science², ³, ⁴</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>History and Social Sciences², ³, ⁴</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Foreign Language, Fine Arts or Career and Technical Education⁷</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Economics and Personal Finance</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Electives⁴</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Student Selected Test⁵</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>22</td>
<td>6</td>
</tr>
</tbody>
</table>

¹Courses 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.

²Courses 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.

³Courses 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.

⁴For the 2011-2012 academic year and beyond: Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

⁵A 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 in VAC20-131-110.

⁶For the 2011-2012 academic year and beyond: 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 (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 of Education as an additional test to verify student achievement.

⁷For the 2011-2012 academic year and beyond: Pursuant to § 22.1-253.13 of the Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.
1. Sequential Electives
Beginning with the graduating class of 2003, at least two sequential electives are required for the Standard Diploma. Sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
• Courses used to satisfy the one unit of credit in a fine arts or career and technical education course may be used to partially satisfy this requirement.
• An exploratory course followed by an introductory course may not be used to satisfy the requirement.
• An introductory course followed by another level of the same course of study may be used.
• Sequential electives do not have to be taken in consecutive years.

2. Locally Awarded Verified Credits for the Standard Diploma
Students may be awarded locally verified credits in science and social studies to fulfill the requirements for verified credits for the standard diploma. To be eligible for locally awarded verified credit, a student must:
• pass the high school course but not pass the related Standards of Learning test or approved substitute;
• score within a 375-399 scale score range on any administration of the Standards of Learning test after taking the test at least twice;
• have earned fewer than four of the verified credits required for the standard diploma; and
• demonstrate achievement in the academic content through the appeal process that follows.

In the appeal process for the student, a review panel will be established at the school consisting of an administrator, the School Counseling Director, and the Lead Teacher for the appropriate content area. The panel will review the student’s record for the course in question and grant the verified credit if the student has met the eligibility criteria listed above.

No more than three verified credits may be awarded through this process. Students may not use locally awarded verified credits for the Advanced Studies Diploma.

Requirements for an Advanced Studies Diploma
1. To graduate with an Advanced Studies Diploma, students must earn the standard credits outlined in the table below, and of the total credits earned, students shall earn the following number of verified units of credits: English-two; Mathematics-two; Science-two; History/Social Science-two; and one additional verified unit of credit of the student's own choosing.
2. Students who complete the requirements for an Advanced Studies Diploma with an average grade of 3.00 or better at the end of their senior year and successfully complete college-level coursework that will earn the student at least nine transferable credits in Advanced Placement (AP), International Baccalaureate (IB), or dual enrollment courses will receive the Governor's Seal on the diploma.
3. Beginning with students entering ninth grade for the first time in 2013–2014, a student must successfully complete one virtual course, which may be non-credit bearing.
Credits Required for Graduation for an Advanced Diploma

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Units of Credit</th>
<th>Units of Credit Beginning with 9th Graders 2011-2012</th>
<th>Number of these Required to be Verified</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics¹</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory Science²</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>History and Social Sciences³</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language⁴</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fine Arts or Career and Technical Education</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Economics and Personal Finance</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Student Selected Test⁵</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>26</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

¹Courses 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.

²Courses 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.

³Courses 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.

⁴For the 2010-2011 academic year only: Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

⁵A 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 8 VAC20-131-110.

Requirements for Diploma Seals from the Board of Education

1. Requirements for a Board of Education's Seal
   Students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of “A” shall receive a Board of Education Seal on the diploma.

2. Requirements for Board of Education's Career & Technology Education Seal
   The Board of Education’s Career and Technical Education Seal will be awarded 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
   a. 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
   b. 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.

3. Requirements for Board of Education's Seal of Advanced Mathematics and Technology
   The Board of Education’s Seal of Advanced Mathematics and Technology will be awarded to students who earn either a Standard or Advanced Studies Diploma.
   a. 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
   b. better
c. and do one of the following
   • pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
   • acquire a professional license in a career and technical education field from the Commonwealth of Virginia
   • 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.

4. Requirements for a Board of Education’s Seal for Excellence in Civics Education
   The Board of Education’s Seal for Excellence in Civics Education will be awarded to students who earn either a Standard or Advanced Studies diploma and
   a. complete Virginia and United States History and Virginia and United States Government courses with a grade of “B” or higher
   b. have good attendance and no disciplinary infractions as determined by local school board policies
   c. complete 50 hours of voluntary participation in community service or extracurricular activities.
      Activities that would satisfy this requirement include:
      • volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate;
      • participating in Boy Scouts, Girl Scouts, or similar youth organizations;
      • participating in JROTC;
      • participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or
      • participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.

Governor’s Early College Scholars Program
   The Early College Scholars program allows eligible high school students to earn at least 15 hours of transferable college credit while completing the requirements for an Advanced Studies Diploma. The result is a more productive senior year and a substantial reduction in college tuition. Students earning a college degree in seven semesters instead of eight can save an average of $5,000 in expenses.

To qualify for the Early College Scholars program, a student must:
   • have a "B" average or better;
   • be pursuing an Advanced Studies Diploma; and
   • take and complete college-level course work (i.e., Advanced Placement, International Baccalaureate, Cambridge, or dual enrollment) that will earn at least 15 transferable college credits.

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

See your school counselor for more information or visit the following website: http://www.doe.virginia.gov/instruction/graduation/early_college_scholars/index.shtml.
Newport News Scholars Program

1. The NNPS Scholars Program is designed to provide an academically challenging and intellectually stimulating advanced course of study; to recognize students’ academic achievements beyond the advanced requirements for graduation; and to further enhance the NNPS Advanced Placement course offerings. The Superintendent’s Seal of Distinction will be awarded on the diplomas of students who successfully complete the Scholars Program.

2. Requirements for the Scholars Program include:
   a. All requirements for the NNPS Advanced Studies Diploma
   b. As part of the graduation requirements, at least five Advanced Placement courses (at least one for each core content area – English, social studies, science, and mathematics – as well as a dual enrollment (college course) or an additional Advanced Placement course must be included in the student’s program of study to qualify for a Scholars Seal. The Advanced Placement examination must be taken for all Advanced Placement credits applied toward the Scholars Program.
   c. A four-course sequence in at least one world language.
   d. Projects. The student must individually complete both of the following requirements:
      1. Individual Scholars Project – research paper/project or multi-media project.
         • The Scholars Project must be pre-approved by the Division Scholars Committee. This committee will meet three times during each academic year, and the proposal should be submitted one week prior to an announced meeting date for consideration at that meeting.
         • The project will be selected by the student in an area of his/her interest.
         • The project must go beyond requirements for any course taken while in high school. International Baccalaureate senior papers and other senior projects may be expanded to meet the Scholars Project requirement.
         • The project must have a tangible product such as an advanced research paper/thesis, a complex multi-medial project, or a specialized portfolio.
         • The project must culminate in a formal Scholars Presentation before an audience. The Scholars Project and presentation must be given no later than the end of the third quarter of the senior year.
         • The Scholars Project presentation should be a minimum of 15 minutes and a maximum of 30 minutes. A question and answer period should follow the presentation.
      2. One hundred hours of elective community service which should be completed by the end of the eleventh grade. "Community Service" for this project is defined as, "Voluntary unpaid work for the good of others." The following guidelines describe hours that may be used for this community requirement.
         • Community service for this project must directly benefit the citizens of Newport News.
         • The 100 hours must be served on one focused service project in the area of the student’s choice. The project should demonstrate a commitment, which is served over at least six sessions.
         • A plan for the community service project must be presented to and be pre-approved by the Division Scholars Committee. The project proposal may be presented for approval as early as the freshman year, but no later than May 15 of the junior year.
         • Community service hours credited toward the Scholars Program must be beyond hours required by any course, extra-curricular activity, or other school or community program requirement.
         • No monetary compensation may be received by the student for these hours.
         • A log of hours verified by the supervising adult from the appropriate community organization must be turned in to the Scholars Program Coordinator (suggested completion by the end of the student’s eleventh grade year).
• The student will meet with the Scholars Committee to reflect on the community service experience at one of the three annual Scholars Committee meetings.
• Adjustments to the required timeline will be considered on a case-by-case basis for students who transfer into NNPS during the 11th or 12th grade year.

3. The Scholars Project and elective community service may be coordinated as two components of a single project.

See your school counselor for more information. The Newport News Program Application is in this guide.

Requirements for Other Diplomas
1. Requirements for the Modified Standard Diploma (Effective for students entering the ninth grade prior to the 2013-2014 school year)
a. Every student will be expected to pursue a Standard Diploma or Advanced Studies Diploma. The Modified Standard Diploma program is intended for certain students at the secondary level who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individualized Education Program (IEP) team including the student, where appropriate, at any point after the student's eighth grade year.

b. The school must secure the informed written consent of the parent/guardian and the student to choose this diploma program after review of the student's academic history and full disclosure of the student’s options.

c. The student who has chosen to pursue a Modified Standard Diploma shall also be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout that student's high school career, and the student must not be excluded from courses and tests required to earn a Standard or Advanced Studies Diploma.

d. Students pursuing the Modified Standard Diploma will pass the 8th grade English (Reading, Literature, and Research) and mathematics Standards of Learning tests to meet the literacy and numeracy requirements. Students may substitute a higher-level Standards of Learning test (i.e., end of course English [Reading], Algebra I, Algebra, or Geometry) for the 8th grade SOL tests in English (Reading, Literature, and Research) and mathematics or other substitute tests approved by the Virginia Board of Education.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Standard Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics¹</td>
<td>3</td>
</tr>
<tr>
<td>Science²</td>
<td>2</td>
</tr>
<tr>
<td>History and Social Science³</td>
<td>2</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>Fine Arts or Career and Technical Education</td>
<td>1</td>
</tr>
<tr>
<td>Electives⁴</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>

¹Courses completed to satisfy the Mathematics requirement will include content from among applications of algebra, geometry, personal finance, and statistics in courses that have been approved by the Virginia Department of Education (VDOE).

²Courses completed to satisfy the Science requirement will include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the VDOE.

³Courses completed to satisfy the History and Social Sciences requirement will include one unit of credit in U.S. and Virginia History and one unit of credit in U.S. and Virginia Government in courses approved by the VDOE.

⁴Courses to satisfy the Electives requirement will include at least two sequential electives in the same manner for the Standard Diploma.
2. Requirements for the Special Diploma
Students identified as disabled who meet the requirements of their individualized education programs, but do not meet the requirements for the Advanced Studies Diploma, Standard Diploma, or Modified Standard Diploma, will be awarded a Special Diploma.

3. Requirements for the General Achievement Adult High School Diploma
a. The General Achievement Adult High School Diploma is an option for high school dropouts and individuals who exit high school without a diploma. Individuals who are at least 18 years of age and not enrolled in public schools or not otherwise meeting the compulsory school attendance requirements set forth in the code of Virginia shall be eligible to earn the General Achievement Adult High School Diploma.

b. The required number of standard units of credit may be earned by enrolling in a public school if the individual meets the age requirements, a community college or other institution of higher education, an adult high school program, or correspondence, distance learning, and online courses.

c. Credit and assessment requirements for the General Achievement Diploma are as follows:
   1. Successfully completes the GED program that meets Virginia Board of Education (VBOE) requirements.
   2. Earns a VDOE-approved career and technical 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.
   3. Successfully completes the following courses that incorporate or exceed the applicable Standards of Learning:

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Standard Units of Credit Required</th>
<th>Assessment Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Mathematics(^1)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Science(^2)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>History and Social Sciences(^3)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Electives(^4)</td>
<td>9</td>
<td>passing score on GED Examination</td>
</tr>
</tbody>
</table>

   \(^1\)Courses completed to satisfy the Mathematics requirement will include content in mathematics courses that incorporate or exceed the content of courses approved by the VBOE to satisfy any other VBOE-recognized diploma.

   \(^2\)Courses completed to satisfy the Science requirement will include content in science courses that incorporate or exceed the content of courses approved by the VBOE to satisfy any other VBOE-recognized diploma.

   \(^3\)Courses completed to satisfy the History and Social Sciences requirement will include one unit in U. S. and Virginia History and one unit of credit in U. S. and Virginia Government in courses that incorporate or exceed the content of courses approved by the VBOE to satisfy any other VBOE-recognized diploma.

   \(^4\)Courses to satisfy the elective requirements shall include at least two sequential electives in an area of concentration or specialization, which may include career and technical training.

4. Requirements for an Adult High School Diploma
a. Adult high school diplomas may be granted to students not subject to the compulsory attendance requirements of § 22.1-254 of the Code of Virginia.

b. Credit
   1. Satisfactory completion of 108 hours of classroom instruction in a subject shall constitute sufficient evidence for one unit of credit toward a high school diploma.
   2. When, in the judgment of the principal or the superintendent, an adult not regularly enrolled in the grades 9 through 12 high school program is able to demonstrate by examination or other objective evidence, satisfactory completion of the work, the adult may receive credit in accordance with policies and procedures of the School Board. It is the responsibility of the school division to document the types of examinations employed or other objective evidence used, the testing or assessment procedures, and the extent of progress in each case.
3. Credits earned in adult high school programs shall be transferable as prescribed in the “Regulations Establishing Standards for Accrediting Public Schools in Virginia” within the schools of the school division and shall be transferable to public secondary schools outside the sponsoring school division.

c. Diploma
   1. A diploma, as provided by VDOE regulation, shall be awarded to an adult who completes all requirements of the diploma regulated by the VDOE, with the exception of health and physical education requirements in effect at the time the adult graduates.
   2. An adult high school diploma shall be awarded to an adult student who completes the course credit requirements in effect for a VBOE diploma, with the exception of health and physical education requirements, at the time the adult student first entered the ninth grade. The requirement for specific assessments may be waived if the assessments are no longer administered to students in Virginia public schools.
   3. An adult high school diploma shall be awarded to an adult student who demonstrates through applied performance assessment full mastery of the National External Diploma Program Competencies, as promulgated by the American Council on Education and validated and endorsed by the United States Department of Education.

5. Certificate of Program Completion
   Students in each of the categories noted below will be given a Certificate of Program Completion and will not be permitted to participate in the school commencement exercises:
   • Students who successfully complete all academic coursework required for either the Advanced Studies or Standard Diplomas, but who have not yet obtained the necessary verified credits required by the state for the awarding of a diploma.
   • Students with disabilities who successfully complete all academic coursework required for the Modified Standard Diploma, but who have not earned passing scores on the eighth grade reading and mathematics SOL tests.

   Students who are awarded a Certificate of Program Completion may continue to take the Standards of Learning tests needed to upgrade their certificate to a diploma.

COURSE CREDIT

1. Alternative Methods of Granting Credit
   The standard unit of credit for graduation is based on a minimum of 140 clock hours of instruction. Certain nontraditional learning environments such as alternative learning centers or residential treatment centers offer credits based on other criteria. Students entering Newport News Public Schools from such nontraditional institutions may receive credit towards graduation upon review of their transcript by the Assistant Superintendent for Instructional Services to ensure that the content of the course for which credit is awarded is comparable to 140 clock hours of instruction and upon validation of competency. The Director of Curriculum and Instruction will implement procedures permitting school principals to grant credit when it is evident that the course content from the former institution is comparable to 140 clock hours of instruction, and competency is validated.

2. Counting College Credits toward High School Graduation
   Beginning in the middle school years, students will be counseled as to opportunities for beginning postsecondary education prior to high school graduation. Students taking advantage of such opportunities will not be denied participation in school activities for which they are otherwise eligible. Whenever possible, students will be encouraged and afforded opportunities to take college courses simultaneously for high school graduation and college degree credit, under the following conditions:
a. prior written approval of the high school Principal has been obtained;
b. all requirements for high school graduation are completed at the end of the first year of college;
c. the course(s) for which high school credit is to be issued corresponds to that needed for high school graduation (i.e., one year of college English for one credit of English);
d. the college course(s) for which high school credit is to be granted is part of the student's program leading to college graduation, as evidenced by an official transcript.

3. Course Credit Policy for Cooperative Education
The cooperative education programs are designed for students who wish to combine classroom instruction with supervised on-the-job training in occupations of their choice. Students in a cooperative education program have consecutive periods in their daily school schedule for on-the-job training activities and scheduled time to allow the student to be employed. Cooperative education students may receive credit for both classroom instruction and work experience.

4. Credit for Courses Taught By Special Education Teachers
Special education students who are able to learn material designed for their age/grade level, but whose handicap necessitates specially designed instruction which cannot be provided in a regular class taught by a subject matter teacher, may earn unit credit toward graduation for subjects taught by highly qualified special education teachers. This policy applies only if the following criteria are met:

a. the course is comparable in scope and sequence to its general education counterpart, providing a minimum of 140 clock hours of instruction;
b. there is a course outline that includes the objectives of the course, the skills the student is expected to gain, and the text/materials to be used;
c. there are stated procedures for evaluation of the progress of the student toward the course objectives which assure that the student has attained the expected skills and knowledge; and
d. the special education teacher plans cooperatively with the general education teacher of the subject.

The policy will be implemented using established school division procedures.

5. Credit for New Horizons Regional Educational Centers: Governor's School for Science and Technology
When a student is enrolled for one-half day in the regular high school program and the other half at the New Horizons Regional Educational Centers: Governor's School for Science and Technology (GSST), the student receives credits for work successfully completed at the center.

6. College Credit Option in Sequential Courses of Study
If a student has completed the highest level of a sequential course of study (e.g. world language or mathematics) that is available in the school division and chooses to pursue higher level coursework in that subject area at a college, upon successful completion of the college course, the student will receive credit which will be weighted at the same level as the highest level of the course that the student completed in the school division.

This policy applies only if the student has received prior permission from the principal to participate in the college course and only after the subject area supervisor has verified that the course is indeed a higher-level course than the one completed at the high school.

(This policy does not prohibit a student from completing a college level course for no credit towards the high school diploma. Prior permission of the principal is required, however, for any student to take a college course during regular school hours). All costs (tuition, books, fees, transportation, etc.) associated with a student taking a college course are the responsibility of the student and will not be shared by the school division.
7. Transfer of Students
   a. A secondary school will accept credits toward graduation received from other accredited secondary schools and schools accredited through the Virginia Council for Private Education (VCPE). The Board will review on an annual basis the accrediting procedures of the VCPE and direct any changes and modifications of such procedures in relation to the authority granted under these provisions. Students transferring into a Virginia public school shall be required to meet the requirements per regulations specified in 8 VAC 20-131-50 of the State Board of Education to receive a Standard or Advanced Studies Diploma except as modified by subsection E below. To receive a Special Diploma, Modified Standard Diploma, General Achievement Diploma, or Certificate of Program Completion, a student must meet the requirements prescribed by the Standards of Quality.
   b. Standard or verified units of credit earned by a student in a Virginia public school will be transferable without limitation regardless of the accreditation status of the Virginia public school in which the credits were earned.
   c. Records of transferred students will be sent directly to the school receiving the student upon request of the receiving school in accordance with the provisions of the "Management of the Student's Scholastic Records in Virginia."
   d. The academic record of a student transferring into Virginia public schools from other than a Virginia public school, will be evaluated to determine the number of standard units of credit that have been earned, including credit from schools outside the United States, and the number of verified units of credit needed to graduate in accordance with subsection E below. Virginia public schools will accept standard and verified units of credit from other Virginia public schools and state-operated programs. Standard units of credit also will be accepted for courses satisfactorily completed in accredited colleges and universities when the student has been given credit by the previous school attended.
   e. Students transferring above grade 10 from schools or other education programs that do not require or give credit for health and physical education will not be required to take these courses to meet graduation requirements. However, no transfer student will earn fewer than the following number of verified units nor will such students be required to take SOL tests for verified units of credit in courses previously completed at another school or program of study unless necessary to meet the requirements listed in 1 and 2 below:
   f. Students transferring into a Virginia public school from other than a Virginia public school after the tenth grade will be encouraged to earn as many credits as possible toward graduation that are prescribed according to regulations specified in 8 VAC 20-131-50 of the State Board of Education. Students may substitute courses required in other states in the same content areas if the student is unable to meet the specific content requirements of 8 VAC 20-131-50 without taking a heavier than normal course load in any semester, by taking summer school, or by taking courses after the time when he otherwise would have graduated.

1. For a Standard Diploma:
   • Students entering a Virginia high school for the first time during the ninth grade or through the first 20 days of instruction of the tenth grade will earn credit as prescribed in 8 VAC 20-131-50;
   • Students transferring in after the first 20 days of instruction of the tenth grade through the first 20 days of instruction of the eleventh grade will earn a minimum of four verified units of credit: one each in English, mathematics, history, and science. Students who complete a career and technical education program sequence may substitute a certificate, occupational competency credential, or license for either a science or history and social science verified credit pursuant to 8 VAC 20-131-50 and,
   • Students transferring in after the first 20 days of instruction of the eleventh grade through the first 20 days of instruction of the twelfth grade will earn a minimum of two verified units of credit: one in English and one of the student’s choosing.
2. For an Advanced Studies Diploma:
   • Students transferring in at the ninth or at the beginning of the tenth grade will earn credit as prescribed in 8 VAC 20-131-50;
   • Students transferring in during the tenth grade or at the beginning of the eleventh grade will earn a minimum of six verified units of credit: two in English, and one each in mathematics, social studies, and science, and one of the student’s choosing.
   • Students transferring in during the eleventh grade or at the beginning of the twelfth grade will earn a minimum of four verified units of credit: one in English and three of the student’s choosing.
   • Students transferring into a Virginia secondary school after the first semester of their eleventh grade year, must meet the requirements of 8 VAC 20-131-60.G.1.c or E.2.c. Students transferring after 20 instructional hours per course of their senior or twelfth grade year shall be given every opportunity to earn a Standard or Advanced Studies or Modified Diploma. If it is not possible for the student to meet the requirements for a diploma, arrangements should be made for the student’s previous school to award the diploma. If these arrangements cannot be made, a waiver of the verified unit of credit requirements may be available to the student. The Department of Education may grant such waivers upon request by the local school board in accordance with guidelines prescribed by the Board.
   • The transcript of a student who graduates or transfers from a Virginia secondary school shall conform to the requirements of 8 VAC 20-160-10 Regulations Governing Secondary School Transcripts.

8. High School Courses Taken in Middle School
   When students in middle school successfully complete courses offered for credit in grades 9-12, credit will be counted toward meeting the standard units required for graduation provided the courses meet SOL requirements or are equivalent in content and academic rigor to those courses offered in high school. Verified units of credit are awarded when students achieve a passing score on end-of-course SOL tests.

   The course grades for high school credit courses taken in middle school become a part of the high school transcript and are included in the student’s grade point average.

   Virginia Board of Education Regulation 8 VAC 20-131-90.C allows parents to request that final grades in credit-bearing courses taken in middle school be omitted from the student’s transcript and the student not earn high school credit for the course. The credit-bearing courses are Algebra I, Geometry, and World Language. The parents’ request must be in writing to the school principal prior to July 1 following completion of the eighth grade.

9. Credit Requirements for Grade Classification
   The credit requirements for grade classification in the secondary schools are as follows:

<table>
<thead>
<tr>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 credits</td>
<td>11 credits</td>
<td>16 credits</td>
</tr>
</tbody>
</table>

   The credits required for classification as a twelfth grade student must be accompanied by a schedule of classes that will enable the student to graduate by June of that school year. Any exception to this classification must be for exceptional circumstances approved personally by the principal.
Note: The accreditation status of a high school shall not be included on the student transcript provided to colleges, universities, or employers. The Board expressly states that any student who has met the graduation requirements established in 8 VAC 20-131-50 and has received a Virginia diploma holds a diploma that should be recognized as equal to any other Virginia diploma, regardless of the accreditation status of the student’s high school. It is the express policy of the Board that no student shall be affected by the accreditation status of the student’s high school. The Board shall take appropriate action, from time to time, to ensure that no student is affected by the accreditation status of the student’s school.

Revised: July, 1983; July 27, 1988; July 1992; August 1992; May 18, 1994; January 22, 1997; November 12, 1997; December 17, 1997; May 17, 2000; February 19, 2003; March 2003; January 19, 2004; April 21, 2004; May 16, 2006; December 12, 2006; December 2007; December 2010; February 12, 2012; February 19, 2013

Grade Point Average and Class Ranking of Secondary Students

Grade Point Average
Grade point averages will be provided for students in grades 9 through 12. Grade point average (GPA) and will be based upon the grades the student has earned in courses for which high school credit is awarded (including failing grades, repeated courses, summer school, night school and credit courses taken prior to grade nine). If a student repeats a course, only the higher of the two grades will be computed in the average.

Class Rank
1. Class ranking in Newport News Public Schools will be provided for students in grades 9 through 12.
2. Class ranking will be based upon the grades the student has earned in courses for which high school credit is awarded. This includes eighth grade accelerated courses in Algebra, Geometry, World Languages, and courses at the Governor’s School for Science and Technology (GSST) for which high school credit is awarded.
3. Students will be ranked at the end of each semester.
4. Rank in class will be computed to the thousandth of a percent with the thousandth place truncated and no rounding imposed.
5. For purpose of designation of student honors and for college admission information, the end of the first semester of the senior year will serve as the cutoff date for computation of class rank.
6. In computing class rank of students, the following scale will be used:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Points for Advanced Standing Courses (IB, AP, GSST)</th>
<th>Points for Honors Courses (H, Pre-IB)</th>
<th>Points for Standard Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>4.5</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>3.5</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2.5</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>1.5</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

7. Course weighting is assigned based upon the recommendation of the division curriculum committee and approval of the School Board. All courses identified for advanced standing contain a mandated external evaluation component. Students who do not participate in the external evaluation (i.e. AP exam) will receive honors weighted credit.
8. Class rank is to be determined by assigning the student with the highest GPA a rank of number one (1) in the class; the second highest, the rank of number two (2), etc. In cases where more than one student has the same numerical average, all students with that average will be given the same rank. The next highest average will assume the next rank position that will indicate the number of students having a higher rank. Rank will be computed to the hundredths place. Place value beyond the hundredths place will not be considered.

Example:

<table>
<thead>
<tr>
<th>Student No.</th>
<th>GPA</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.00</td>
<td>Rank 1</td>
</tr>
<tr>
<td>2</td>
<td>4.00</td>
<td>Rank 1</td>
</tr>
<tr>
<td>3</td>
<td>3.98</td>
<td>Rank 3</td>
</tr>
<tr>
<td>4</td>
<td>3.98</td>
<td>Rank 3</td>
</tr>
</tbody>
</table>

The student with the next highest grade average would have the rank of five (5) in the class, indicating that there are four students who rank higher.

9. Selection of Honors Graduates

Class ranking computed at the completion of the first semester of the senior year will be used to determine honor graduates. A student with a 3.0 average is to be considered an honor graduate. A student with a 3.4 average will be recognized as graduating with highest honors.

All students will be informed in writing of the procedures used for computing rank in class and for selecting honor graduates. The information will be included in the Secondary School Course Offerings guide.

The student with the highest class rank is to be declared the valedictorian of the graduating class. In instances when more than one student holds the numerical rank of one, all students holding the rank are to be declared co-valedictorians. A student who is a full-time college student and simultaneously completing requirements for a high school diploma is not eligible to be declared valedictorian or salutatorian of the class.

10. National Honor Society

Membership standards for the National Honor Society are established in each high school. To be considered for membership, a student must have a minimum grade average and meet other criteria as established by each school.

Secondary Grading Scale

A division-wide numerical scale is used for grading student performance in NNPS secondary schools.

**NOTE:** Only letter grades appear on report cards and transcripts.

The numerical scale is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69</td>
</tr>
<tr>
<td>F</td>
<td>Below 60</td>
</tr>
</tbody>
</table>

This scale will be implemented beginning the 2013-2014 school year. This new scale will not be retroactive for past report card grades or the recalculation of GPAs.
ACADEMIC OPTIONS GUIDE FOR STUDENTS

High School Course Sequences
The following flow charts show the sequence of courses for some academic areas.

Additional courses are available at New Horizons Regional Education Center for students who complete the course of study at their home schools in the following subjects: Science, Mathematics.

See your school counselor if you have questions.

English

9th English
9th H English

10th English
10th H English

11th English
11th H English
11th AP English

12th English
12th H English
12th AP English

Science

Earth Science
H Earth Science

Biology
H Biology

Chemistry
H Chemistry
Biology II - Anatomy and Physiology
Biology II - Genetics
Biology II - Advanced Survey of Biological Topics: Marine Biology, Zoology, Ecology, Forensics
Earth Science II - Oceanography, Astronomy

Physics I
H Physics
AP Biology/Lab
AP Chemistry/Lab
AP Environmental Science

AP Physics

Social Studies

H World Geography
AP World Geography
Human Geography

H World History I
AP World History
World History

H U.S. History
AP U.S. History
U.S. History

Government
H Government
AP U.S. Government
Mathematics

Algebra I → Geometry → H Geometry → Algebra, Functions, and Data Analysis\(^1\) (AFDA) → Algebra II → H Algebra II

H Algebra II → H Math Analysis

→ AP Calculus AB
→ AP Calculus BC
→ AP Statistics\(^2\)

\(^1\)Algebra Functions and Data Analysis cannot be taken AFTER Algebra II.
\(^2\)Trigonometry/Elementary Functions may also be a prerequisite for AP Statistics.

Introduction to Computer Programming → H Computer Programming → AP Computer Science

Health and Physical Education

Select one of three Physical Education options:
Option 1: In School

Introduction to Fitness → SELECT ONE:
Dance
Lifetime Activities
Fitness II

Option 2: Summer School

Outdoor Education I → Outdoor Education II

Option 3: Extended School

Fitness & Wellness Management I → Fitness & Wellness Management II

ELECTIVES:
Dane & Fitness
Advanced Team Sports
Personal Fitness

Students may combine options, but with Option 1 (in any combination) it must include Introduction to Fitness.

Health

Health I → Health II/ Driver Education

ELECTIVE:
Sports Medicine
English Courses

ENGLISH 6  
Course Number: EN6000  
Prerequisites: None  
Grade Level: 6  
The sixth-grade student will read independently a variety of fiction and nonfiction texts, including a significant number of classic works, for appreciation and comprehension. The student will also plan, draft, revise, and edit narratives, descriptions, and explanations, with attention to composition and style as well as sentence formation, usage, and mechanics. The student will begin the study of word origins and continue vocabulary development. In addition, technology will be used as a tool to research, organize and communicate information. Critical thinking will be stressed.

ENGLISH 7  
Course Number: EN7000  
Prerequisites: None  
Grade Level: 7  
The seventh-grade student will continue to read a wide variety of fiction, nonfiction and poetry while becoming more independent and analytical. The student will continue to refine written composition skills, with special attention to word choice, organization, style and grammar. The student will continue vocabulary development and will apply research techniques to gather, organize and communicate information, properly citing sources.

ENGLISH 8  
Course Number: EN8000  
Prerequisites: None  
Grade Level: 8  
The student will continue to develop an appreciation for literary genres through a study of a wide variety of selections. The student will describe themes, make inferences, interpret cause and effect relationships, differentiate between fact and opinion and draw conclusions from a variety of texts, including extensive nonfiction. The student will plan, draft, revise, and edit writing, with emphasis on exposition and persuasion. The student will apply reading, writing and research skills in all subjects, as well as respond critically to literature. The student will continue development of vocabulary.

High School English Courses  
Students must complete four years of required English courses. Summer reading is required of all English students 9-12. Students in grades 11 and 12 have the option of taking AP (Advanced Placement) English. Passing both the English EOC Reading and Writing SOL Tests are required for the two English verified credits needed for graduation.

ENGLISH 9  
Course Number: EN1100, EN1200  
Prerequisites: None  
Grade Level: 9  
Credit: ½ credit per semester (+0.5 weighted credit for Honors)  
The student will be introduced to significant literary texts and extensive nonfiction. Increased requirements for research and reporting in all subjects will be supported by the use of print, electronic databases, online resources and other media. The student will distinguish between reliable and questionable sources of information. The student will continue development of vocabulary, with attention to connotations, idioms and allusions. Writing will encompass narrative, expository and persuasive forms for a variety of purposes and audiences.
ENGLISH 10
Course Number: EN2100, EN2200
Prerequisites: None
Grade Level: 10
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
The student will read and analyze literary texts from a variety of eras and cultures. Attention will be given to the analysis of nonfiction texts. The student will critique the writing of peers and professionals, using analysis to improve writing skills. The student will continue to build research skills by crediting sources and presenting information in a format appropriate for content. The student will continue development of vocabulary.

ENGLISH 11
Course Number: EN3100, EN3200
Prerequisites: None
Grade Level: 11
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
The eleventh-grade student will be able to make and analyze information and persuasive oral presentations, with attention to the accuracy of evidence and the effectiveness of delivery. The student will continue to develop and expand vocabulary. The study of both classic and contemporary American literature will enhance the student's appreciation for literature. The student will be able to identify the prevalent themes and characterizations present in American literature, which are reflective of history and culture. Students will also use nonfiction texts to draw conclusions and make inferences citing textual support. The student will be able to write clear and accurate personal, professional and informational correspondence and reports for research and other applications.

AP ENGLISH 11
Course Number: EN3300
Prerequisites: Satisfactory completion of English 9 and 10
Grade Level: 11
Credit: ½ credit per semester (+1.0 weighted credit)
The AP English 11 course in Language and Composition is primarily a course in effective writing and critical reading. The writing skills that students come to appreciate through attentive and continued analysis of a variety of prose texts can serve them in their own writing as they become increasingly aware of these skills and their pertinent uses. American Literature is the primary focus for analysis and reflection. The instructional level equals that of college freshman English courses. All SOL requirements are met and students take both the English EOC Reading and the Writing SOL Tests. Students also prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

ENGLISH 12
Course Number: EN4100, EN4200
Prerequisites: None
Grade Level: 12
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
The twelfth-grade student will use organizational skills, audience awareness, appropriate vocabulary and grammar, and both verbal and nonverbal presentation skills to plan and deliver an effective five to ten minute oral presentation. The student will analyze British literature and literature of other cultures. The course contains contextualized content designed to provide successful transition and entry into college and careers. The course advances students' preparation for critical reading, college and workplace writing, and career-ready communications by providing additional experience and rigor in critical thinking, the fundamentals of academic writing, exposition, persuasion and argumentation.
AP ENGLISH 12
Course Number: EN4300
Prerequisites: Satisfactory completion of English 9, 10 and 11
Grade Level: 12
Credit: ½ credit per semester (+1.0 weighted credit)
The AP English 12 course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Writing is an integral part of AP English. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

BEGINNING COMPOSITION
Course Number: EE2129
Prerequisites: None
Grade Level: 9, 10
Credit: ½ credit
Beginning Composition is designed to help students develop narrative, literary, expository, and technical writing to inform, explain, analyze, and entertain. The course will emphasize planning and organization, writing with a purpose, sentence development, and the use of specific vocabulary and information. Patterns of organization, revision techniques, and editing strategies for the correct use of language, spelling, punctuation, and capitalization will be addressed. This is a one semester course.

ADVANCED COMPOSITION
Course Number: EE2130
Prerequisites: Satisfactory completion of English 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+0.5 weighted credit)
Advanced Composition is designed to give students the writing experience necessary to meet the expectations of college-level composition. Course topics include narration, description and exposition. This course is recommended for students in honors and AP classes.

CREATIVE WRITING
Course Number: EE2009
Prerequisites: Successful completion of English writing portfolio
Grade Level: 9-12
Credit: ½ credit
Creative writing is designed to help students develop creative writing skills and prepare manuscripts for publication. Students will create individual creative writing booklets, share work in a writer’s circle, and contribute to a classroom literary magazine. Whenever possible, students will share completed work with live audiences. This is a one semester course.

H DEBATE I & II
Course Number: EE2310, EE2320
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester (+0.5 weighted credit)
Debate is designed to help students develop a wide repertoire of speaking skills while developing poise and confidence. The students will be exposed to a variety of speaking and debating experiences both in the classroom and in competition through engagement in multiple speech events sanctioned by the Virginia High School League, Tidewater Debate League and the National Forensic League. This course may be repeated for credit.
JOURNALISM I
Course Number: EE1100
Prerequisites: Successful completion of English 8 or 9
Grade Level: 9-12
Credit: ½ credit per semester
The Journalism I course introduces students to mass media and instructs students in various steps of reporting and news writing. Course content includes techniques for gathering the story, writing different types of stories, layout & design, and management & production of newspapers and other media.

JOURNALISM II
Course Number: EE1200
Prerequisites: Successful completion of Journalism I
Grade Level: 10-12
Credit: ½ credit per semester
Journalism II continues to develop a student’s ability to write in a journalistic style while improving personal writing style. Course content includes the types, styles, mechanics, and editing of news writing.

PHOTOJOURNALISM
Course Number: EE1400
Prerequisites: Successful completion of English 9 and evidence of above average writing skills. The writing folder may be used for evidence of writing proficiency. Student interest and teacher recommendation will also be considered. Students must meet VHSL eligibility requirements due to the state publication competition that is part of the course requirement.
Grade Level: 10-12
Credit: ½ credit per semester
This course uses a curriculum for yearbook journalism, which will help the yearbook staff understand how to correctly communicate designs to the publisher. The course includes close-ups of common design application and copy preparation procedures required for printing. This course may be repeated for credit.

LITERATURE & FILM I
Course Number: EE2219
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit
Literature and Film focuses on a comparative study of several novels and short stories and the films they inspired. Students will read selected literature, view and analyze elements of films, discuss and write analytical and comparative essays, and present independent and group projects to the class. The course emphasizes critical reading of literature and formal writing about films. This is a one semester course.

LITERATURE & FILM II: SCREENWRITING
Course Number: EE2249
Prerequisites: Literature & Film I
Grade Level: 11, 12
Credit: ½ credit
Literature and Film II is a writing-intensive, hands-on, project based course that will build on the objectives of the Literature and Film I course. Emphasis will be placed on structure and formatting of screenplays, as well as creating film sequences from storyboard to completion. Assignments include screen writing, storyboarding, organizing, and laying out a sequence of film and may also include filming, editing, and presenting a final student-generated short film of not less than 15 minutes. This is a one semester course.
PUBLIC SPEAKING  
Course Number: EE2229  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit  
Public Speaking is designed to help students develop and improve public speaking and communication skills. Students will learn to plan, write, and deliver effective speeches and to communicate appropriately in group situations. Students will also design and create PowerPoint presentations, and use audio-visual equipment and visual aids to enhance the delivery of presentations. Oral interpretation skills will also be developed. This is a one semester course.

ANCIENT LITERATURE & MYTHOLOGY  
Course Number: EE2239  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit  
Ancient Literature and Mythology focuses on developing a sense of cultural literacy, an understanding of multi-cultural literacy, and an enriched vocabulary. Students will study the mythology of Greece and Rome; writings from the Near and Middle East; and selections from Africa, Scandinavia, North, Central, and South America, and Asia. This is a one semester course.

TECHNICAL WRITING  
Course Number: EE2119  
Prerequisites: Successful completion of English 9 and 10  
Grade Level: 11, 12  
Credit: ½ credit  
This course is designed to provide extended practice and knowledge in writing for real world application. Students will develop skills in thinking and will write resumes, brochures, directions, instructions, sales messages, abstracts, advertisements, reports, etc. Students will work in teams to collect, analyze and organize data to develop a written report. The report will also be presented in multimedia form. This is a one semester course.

PSAT/SAT PREP  
Course Number: MC0069  
Prerequisites: Algebra 1 and one semester Geometry  
Grade Level: 10-12  
Credit: no credit or ½ credit  
Students will prepare for the verbal and math portions of the SAT. Students will also learn how to improve study skills, develop note-taking strategies and practice time management skills. This is a one semester course.

YOUNG ADULT LITERATURE  
Course Number: EE2400  
Prerequisites: None  
Grade Level: 9, 10  
Credit: ½ credit per semester  
Young Adult Literature will enable students to examine several current novels for technique, style, language, theme and relationship to society. Students will keep response journals, participate in literature circles, and present book critiques. Mini projects on contemporary topics will help students understand life through the study of literature. Students may enter second semester.
Mathematics Courses

MATH 6
Course Number: MA6310, MA6410
Prerequisites: None
Grade Level: 6
Students are transitioned from the emphasis placed on whole number arithmetic in the elementary grades to foundations of algebra. This course emphasizes rational numbers. Students will use ratios to compare data sets; recognize decimals, fractions, and percents as ratios; solve single-step and multi-step problems, using rational numbers; and gain a foundation in the understanding of integers. Students will solve linear equations and use algebraic terminology. Students will solve problems involving area, perimeter, and surface area, work with \( \pi \) (pi), and focus on the relationships among the properties of quadrilaterals. In addition, students will focus on applications of probability and statistics. An advanced course is also available.

MATH 7
Course Number: MA7310, MA7410
Prerequisites: None
Grade Level: 7
The foundations of algebra are emphasized. Students who successfully complete the grade seven course should be prepared to study Algebra I in grade eight. Topics in grade seven include proportional reasoning, integer computation, solving two-step linear equations and recognizing different representations for relationships. Students will apply the properties of real numbers in solving equations, solve inequalities, and use data analysis techniques to make inferences, conjectures, and predictions. An advanced course is also available.

MATH 8 – TRANSITION TO ALGEBRA
Course Number: MA8410
Prerequisites: None
Grade Level: 8
Students will be introduced to content that reviews or extends concepts and skills learned in previous grades as well as new content that prepares students for more abstract concepts in algebra and geometry. The eighth-grade standards provide students additional instruction and time to acquire the concepts and skills necessary for success in Algebra I. Students will gain proficiency in computation with rational numbers and will use proportions to solve a variety of problems. New concepts include solving multi-step equations and inequalities, graphing linear equations, visualizing three-dimensional shapes represented in two-dimensional drawings and applying transformations to geometric shapes in the coordinate plane. Students will verify and apply the Pythagorean Theorem and represent relations and functions, using tables, graphs and rules. The eighth-grade standards provide a more solid foundation in Algebra I for those students not ready for Algebra I in grade eight.

ALGEBRA I
Course Number: MA1010, MA1111, MA1020, MA1100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
Algebra I is the study of linear and quadratic equations (functions) and inequalities including rational fractional and irrational equations numbers. It is offered one or two periods, one or two years. Passing the Algebra I SOL test is required to earn a verified credit toward graduation.

GEOMETRY
Course Number: MA2010, MA2100, MA2200
Prerequisites: Algebra I
Grade Level: 9-12
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
Geometry is a deductive study of Euclidean geometry including space geometry and coordinate geometry. An emphasis is placed on logical reasoning and deductive proof. It is offered one or two periods. An Honors level is available. Passing the Geometry SOL test is required to earn a verified credit toward graduation.
ALGEBRA, FUNCTIONS & DATA ANALYSIS
Course Number: MA2300
Prerequisites: Algebra I
Grade Level: 9-12
Credit: ½ credit per semester
The course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data. Data will be generated by practical applications arising from science, business and finance. Students will solve problems that require the formulations of linear, quadratic, exponential or logarithmic equations or a system of equations.

ALGEBRA II
Course Number: MA3100, MA3220
Prerequisites: Algebra I or Geometry
Grade Level: 9-12
Credit: ½ credit per semester
Algebra II is a one-year study of intermediate algebra. The course includes a review of Algebra I topics. New topics studied are sequences and series, logarithmic and exponential functions, complex numbers, and analytic geometry. An Honors course is also available. Passing the Algebra II SOL test is required to earn a verified credit toward graduation.

TRIGONOMETRY/ELEMENTARY FUNCTIONS
Course Number: MA3300
Prerequisites: Algebra II
Grade Level: 11, 12
Credit: ½ credit per semester
Trigonometry is a study of trigonometric and circular functions and their inverses. The course also includes an introduction to polar coordinates and vectors. Second semester is a study of elementary functions emphasizing the properties of algebraic functions.

PROBABILITY & STATISTICS
Course Number: MA3500
Prerequisites: Algebra II
Grade Level: 11, 12
Credit: ½ credit per semester
Probability and Statistics is a one-year course designed to introduce students to statistical procedures as they apply to real life applications. Students will study data analysis and production, probability and statistical simulation.

HONORS MATHEMATICAL ANALYSIS
Course Number: MA4100
Prerequisites: Honors Algebra II or Trigonometry/Elementary Functions
Grade Level: 11, 12
Credit: ½ credit per semester (+0.5 weighted credit)
Mathematical Analysis is a year study of pre-calculus material. An emphasis is placed on mathematical proof. The course covers a study of infinite sequences and series, analytic geometry from a vector approach, and algebraic, exponential, logarithmic, and trigonometric functions. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

AP CALCULUS AB
Course Number: MA4200
Prerequisites: Mathematical Analysis
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Calculus AB is a one-year course intended for students who have a thorough knowledge of algebra, analytic and axiomatic geometry, and trigonometry. It includes the study of elementary functions and differential and integral calculus. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.
AP CALCULUS BC
Course Number: MA4300
Prerequisites: Mathematical Analysis
Grade Level: 11, 12
Credit: 1 credit per semester (+1.0 weighted credit)
Calculus BC is a two period one-year course intended for students who have a thorough knowledge of algebra, analytic and axiomatic geometry, and trigonometry. All of the Calculus AB topics are included along with additional advanced topics. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

AP STATISTICS
Course Number: MA4500
Prerequisites: Math Analysis or Trigonometry/Elementary Functions
Grade Level: 11, 12
Credit: ½ credit per semester (+weighted credit)
AP Statistics is a one year study of major statistics concepts and the tools for collecting, analyzing, and drawing conclusions from data. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. With appropriate recommendation this may be taken concurrently with math analysis.

PSAT/SAT PREP
Course Number: MC0069
Prerequisites: Algebra I and one semester of Geometry
Grade Level: 10-12
Credit: ½ credit
Students will prepare for the math and verbal portions of the SAT. Students will also learn how to improve study skills, develop note-taking strategies, and practice time management skills. This is a one semester course.

INTRODUCTION TO COMPUTER PROGRAMMING
Course Number: MA5100
Prerequisites: Algebra I and concurrent enrollment in Geometry
Grade Level: 9-12
Credit: ½ credit per semester
Introduction to Computer Programming is a one-year course involving computer programming using Visual Basic, HTMS, and JavaScript. The student will apply previously developed mathematics skills to computer programming. Enrollment is limited to available equipment and facilities.

HONORS COMPUTER PROGRAMMING IN C++
Course Number: MA5200
Prerequisites: Introduction to Computer Programming or appropriate recommendation and concurrent enrollment in Algebra II
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
H Computer Programming in C++ is a one-year computer programming course using C++. Enrollment is limited to available facilities and equipment.

AP COMPUTER SCIENCE IN JAVA
Course Number: MA5300
Prerequisites: H Algebra II and H Computer Programming in C++
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Computer Science extends the concepts of programming studied previously. Programming is done using JAVA. Enrollment is limited to available equipment and facilities. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.
Science Courses

6TH GRADE SCIENCE
Course Number: SC6000
Prerequisites: None
Grade Level: 6
Sixth Grade Science focuses on the study of force, energy, and matter: the role of the sun's energy on the Earth's systems, water in the environment, air and atmosphere, and basic chemistry concepts. Students will also explore the solar system and natural resource management.

7TH GRADE LIFE SCIENCE
Course Number: SC7000
Prerequisites: None
Grade Level: 7
Seventh Grade Life Science focuses on exploration of cellular organization and classification of organisms, the importance of basic physical and chemical processes of photosynthesis and its importance to life, the relationships among members of an ecosystem, and genetics.

8TH GRADE PHYSICAL SCIENCE
Course Number: SC8000
Prerequisites: None
Grade Level: 8
Eighth Grade Science focuses on understanding of the nature and structure of matter and the characteristics of energy. Major areas explored are physical and chemical changes, the periodic table, reactions, temperature and heat; sound; light; electricity and magnetism; and work, force, and motion.

EARTH SCIENCE I
Course Number: SC1100, SC1200
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
Earth Science is a study of the features and forces of the earth and its place in the solar system and the universe. This course introduces students to such topics as geology, oceanography, meteorology, and astronomy. An accelerated course, Honors Earth Science is also available. All students take the SOL test for Earth Science and must pass it to earn a verified credit toward graduation.

BIOLOGY I
Course Number: SC2100, SC2200
Grade Level: 9-12
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
Biology provides a meaningful view of the whole living world and its interrelationships. Topics such as taxonomy, morphology, physiology, molecular biology, biochemistry, genetics, ecology and animal behavior are covered. This course will include dissections of various animals. In the Honors level of the course, environmental education will be emphasized. The students will be required to plan, develop, and complete an experimental science project and report the results in oral and written form. All students take the SOL test for Biology and must pass it to earn a verified credit toward graduation.

EARTH SCIENCE II – ADVANCED SURVEY – ASTRONOMY
Course Number: SC2339
Prerequisites: Earth Science I and Algebra I
Grade Level: 11-12
Credit: ½ credit
Earth Science II provides an understanding of the components of the universe and their interactions focusing more specifically on the solar system. This is a one semester course.
EARTH SCIENCE II – ADVANCED SURVEY – OCEANOGRAPHY
Course Number: SC 2349
Prerequisites: Earth Science I
Grade Level: 11, 12
Credit: ½ credit
Oceanography is a semester course that involves the study of the historical, physical and chemical aspects of the oceans. The course will use the Chesapeake Bay region for an intense study of the coastal ocean. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Science II semester course as scheduling permits. This is a one semester course.

BIOLOGY II – FORENSICS
Course Number: SC 2319
Prerequisites: Biology I
Grade Level: 11, 12
Credit: ½ credit
Biology II – Forensics is a semester course that combines the concepts of biology and chemistry to explore scientific applications of solving crimes in a comprehensive approach. Students will perform numerous laboratories that will focus on making the connections between science and technology and the impact these two disciplines have on the study of forensic science. Students will use multiple pathways of scientific reasoning to explore the analysis of a crime scene, fingerprints, hair, trace evidence, blood, DNA and case studies. This is a one semester course.

BIOLOGY II – ADVANCED SURVEY – MARINE BIOLOGY
Course Number: SC2369
Prerequisites: Biology I
Grade Level: 11, 12
Credit: ½ credit
Marine Biology is a semester course that involves the study of the oceans and life processes within and around it, and includes the study of plants and animals in the ocean, ecology, and the impact of humans on the ocean. This course will also include dissections of various preserved ocean animals. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.

BIOLOGY II – ADVANCED SURVEY – ZOOLOGY
Course Number: SC2379
Prerequisites: Biology I
Grade Level: 11, 12
Credit: ½ credit
Zoology is a semester course that provides the student with a survey of invertebrate and vertebrate animals. Zoology students will delve into the diversity of life by studying characteristics, taxonomic relationships, life processes, survival mechanisms, and economic importance among the organisms. This course will include dissections of various animals. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.

BIOLOGY II – ADVANCED SURVEY – ECOLOGY
Course Number: SC2389
Prerequisites: Biology I
Grade Level: 11, 12
Credit: ½ credit
Ecology is a semester course that includes studies of the relationship between organisms and the environment, including physical and biological conditions. The course will include experimental studies in the laboratory and the field and data analysis. This is a paired semester class and students may enter second semester. Either semester may be paired with any other Biology II semester course as scheduling permits. This is a one semester course.
BIOLOGY II – ADVANCED SURVEY – FIELD BIOLOGY
Course Number: SC2399
Prerequisites: Biology I
Grade Level: 11, 12
Credit: ½ credit
OFFERED ONLY AT POINT OPTION
This is an alternative to the typical science course in the classroom setting. It allows the use of “Discovery Science” which describes natural structures of processes as accurately as possible through careful observation and data collection. Student interest and participation is far above that of a typical classroom setting. The students arrive at class eager to go out and discover something new, and then follow that up with further research when they get back to class to answer all of their questions. As one of our biology textbooks expresses it, “Science is a quest to understand nature.” Being outdoors brings that quest to life. Seeing the interactions firsthand brings excitement into learning. This is a one semester course.

HONORS BIOLOGY II – ANATOMY & PHYSIOLOGY
Course Number: SC2390
Prerequisites: Biology I
Prerequisite or Co-requisite: Chemistry I
Grade Level: 11, 12
Credit: ½ credit per semester (+0.5 weighted credit)
Anatomy and Physiology is a study of the structure and function of the human body. The course is preparation for advanced biological studies, biomedical nursing, and other science-based careers. Laboratory experiences provide student learning in the following topics: the major body systems; how the body systems work together to provide homeostasis; body functions in the healthy and diseased states; blood typing; muscle action; nerve functioning; and bioethics. Dissections of various preserved animals and organs are an integral part of this course.

AP BIOLOGY/AP BIOLOGY LAB
Course Number: SC2300, SC2320
Prerequisites: Successful completion of Biology
Grade Level: 11, 12
Credit: 1 credit per semester (+1.0 weighted credit for AP Biology; +0.5 weighted credit for AP Biology Lab)
Advanced Placement Biology students will closely follow the program suggested by the College Board. This course emphasizes the principal topics covered in Biology I, however, it is taught at a more intensive level of rigor. Laboratory work is an integral part of the course. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

CHEMISTRY
Course Number: SC3100, SC3200
Prerequisites: Algebra I
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
Chemistry I is a course that explains the basic atomic and molecular processes. Other areas of study include the structure of matter and periodicity of elements, behavior of matter in terms of chemical equilibrium, oxidation-reduction and acid base theory. Honors Chemistry is offered with Algebra/Trig or Algebra II as a co-requisite. All students take the SOL test for Chemistry and must pass it to earn a verified credit toward graduation.
AP CHEMISTRY/AP CHEMISTRY LAB
Course Number: SC3300, SC3320
Prerequisites: Chemistry and Algebra
Grade Level: 11, 12
Credit: 1 credit per semester (+1.0 weighted credit for AP Chemistry; +0.5 weighted credit for AP Chemistry Lab)
Advanced Placement Chemistry students will closely follow the program suggested by the College Board. Students will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. Laboratory work will be required at least fifty percent of the time. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

AP ENVIRONMENTAL SCIENCE
Course Number: SC1300
Grade Level: 9-12
Credit: ½ credit per semester (+1.0 weighted credit)
Advanced Placement Environmental Science students will closely follow the program suggested by the College Board. Students will study scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. The course is taught at an intensive level of rigor. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

GENERAL PHYSICS I
Course Number: SC4150
Prerequisites: Geometry
Grade Level: 10-12
Credit: ½ credit per semester
General Physics I is a two-semester course designed for students who have successfully completed Geometry and are interested in Physics but are not ready for the math requirement of Honors Physics. Students will develop a conceptual understanding of physical principles and how physics plays a role in their everyday lives. Topics covered will include kinematics, dynamics, energy, waves, geometric optics, electricity and magnetism.

HONORS PHYSICS
Course Number: SC4200
Prerequisites: Completion of or current enrollment in Trigonometry or Algebra II/Trigonometry
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
Honors physics includes a discussion of mechanics, kinetic molecular theory, heat, wave motion, sound, light, electrical and magnetism, and atomic and nuclear physics.

AP PHYSICS I
Course Number: SC4310
Prerequisites: No prior coursework in physics is necessary. Completion of geometry and be concurrently taking Algebra II or an equivalent course.
Grade Level: 9-12
Credit: ½ credit per semester (+1.0 weighted credit)
Advanced Placement Physics students closely follow the program suggested by the College Board. The curriculum is challenging, but broad in nature. The course is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power, and mechanical waves and sound. It will also introduce electric circuits. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.
AP PHYSICS II
Course Number: SC4320
Prerequisites: Completed AP Physics I or a comparable introductory course in physics
Grade Level: 10-12
Credit: ½ credit per semester (+1.0 weighted credit)
Advanced Placement Physics students closely follow the program suggested by the College Board. The curriculum is challenging, but broad in nature. The course is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Social Studies Courses

UNITED STATES HISTORY TO 1865
Course Number: SS6000
Prerequisites: None
Grade Level: 6
Students use skills for historical and geographical analysis to explore the early history of the United States from pre-Columbian times until 1865. Students learn fundamental concepts in civics, economics and geography as they study United States history in chronological sequence and learn about change and continuity in our history. They also study documents and speeches that laid the foundation for American ideals and institutions and examine the everyday life of people at different times in the country’s history through the use of primary and secondary sources. Throughout the course, students practice the intellectual skills required for responsible citizenship. All students take the SOL test for United States History to 1865.

UNITED STATES HISTORY: 1865 TO THE PRESENT
Course Number: SS7000
Prerequisites: None
Grade Level: 7
Students use skills for historical and geographical analysis as they examine the history of the United States from the Reconstruction era to the present. Students continue to learn fundamental concepts in civics, economics and geography as they relate to United States history. Political, economic and social challenges facing the nation reunited after civil war are examined chronologically as students develop an understanding of how the American experience shaped the world’s political and economic landscapes. Throughout the course, students practice the intellectual skills required for responsible citizenship. All students take the SOL test for United States History 1865 to the Present.

CIVICS & ECONOMICS
Course Number: SS8000
Prerequisites: None
Grade Level: 8
This course focuses on the roles citizens play in the political, governmental and economic systems of the U.S. Students examine the constitutions of Virginia and the U.S.; identify the rights, duties, and responsibilities of citizens; and describe the structure and operation of government at the local, state, and national levels. Students investigate the process by which decisions are made in the American market economy and explain the government’s role in our economy. They also identify personal character traits such as patriotism, respect for the law, and a sense of civic duty that facilitate thoughtful and effective participation in the civic life of an increasingly diverse democratic society. The course helps students understand politics and government in order to be informed citizens and to participate in the public life of our community, state and nation. It also helps them understand the function of the economy in our society and the world; their role as an employer, worker, producer, or consumer; and their role in the global marketplace. Throughout the course, students practice the intellectual skills required for responsible citizenship. All students take the SOL test for Civics and Economics.
WORLD GEOGRAPHY
Course Number: SS1100, SS1200
Prerequisites: None
Grade Level: 9
Credit: ½ credit per semester (+0.5 weighted credit for Honors)
World Geography is the study of the world's peoples, places, and environments, with a focus on world regions. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives. In the Honors level of the course, students will use geographic resources, inquiry, research, and technology skills to ask and answer geographic questions for a more in-depth study of geography. All students take the SOL test for World Geography and must pass it to earn a verified credit toward graduation.

AP HUMAN GEOGRAPHY
Course Number: SS1300
Prerequisites: None
Grade Level: 9
Credit: ½ credit per semester (+1.0 weighted credit)
AP Human Geography is a rigorous Advanced Placement course that focuses on theoretical and practical applications in the field of geographic inquiry. Students will have the opportunity for hands-on, in-depth study of human geography through classroom discussion, cooperative activities, technology activities, cartography, readings, lab work and outside research and fieldwork. All students take the SOL test for World Geography and must pass it to earn a verified credit toward graduation. Students also prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. The course may be taken in place of World Geography or as an elective credit after taking World Geography.

WORLD HISTORY I
Course Number: SS2100
Prerequisites: None
Grade Level: 10
Credit: ½ credit per semester (+0.5 weighed credit for Honors)
The focus of this course is the study of the historical development of people, places, and patterns of life from ancient times until 1500 AD. Students will use skills of historical and geographical analysis to explore the early history of the world. All students take the SOL test for World History and Geography to 1500 AD and must pass it to earn a verified credit toward graduation.

HONORS WORLD HISTORY I & II
Course Number: SS2200
Prerequisites: None
Grade Level: 10
Credit: ½ credit per semester (+0.5 weighted credit)
The focus of this course is the study of the historical development of people, places, and patterns of life from ancient times until present day. Students will use skills of historical and geographical analysis to explore the history of the world. The course is taught at an accelerated pace in order to cover the content of both World History I and World History II in one year. All students take both the SOL test for World History and Geography to 1500 AD and the SOL test for World History and Geography 1500 AD to Present and must pass the tests to earn verified credits toward graduation.
AP WORLD HISTORY
Course Number: SS2300
Prerequisites: None
Grade Level: 10
Credit: ½ credit per semester (+1.0 weighted credit)
At the Advanced Placement level, world history students go beyond a general understanding of world history. They use analytic skills and write extensively on the major themes of history from the foundations of civilization to the present day. Students are given the opportunity to “do history” by using the steps a historian would use in analyzing historical events and evidence worldwide. The study of Africa, the Americas, Asia and Europe offers a balanced coverage of world history. The coursework is rigorous and the course is taught at an accelerated pace in order to cover the content of both World History I and World History II in one year and the AP content specified by College Board. All students take both the SOL test for World History and Geography to 1500 AD and the SOL test for World History and Geography 1500 AD to Present and must pass the tests to earn verified credits toward graduation. Students also prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. The course may be taken in place of Honors World History I and II or as an elective credit after taking World History. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

UNITED STATES & VIRGINIA HISTORY
Course Number: SS3100, SS3200
Prerequisites: None
Grade Level: 11
Credit: ½ credit per semester (+0.5 weighed credit for Honors)
The focus of this course is the study of the historical development of American ideas and institutions from the Age of Exploration to the present. Students will learn fundamental concepts in civics, economics and geography. They will obtain a basic knowledge of American culture through a chronological survey of major issues, movements, people and events in United States and Virginia history. In the Honors level course, students go beyond a general understanding of history and use historical and geographical analysis skills to explore events, people and ideas in American history. All students take the SOL test for VA & U.S. History and must pass it to earn a verified credit toward graduation.

AP UNITED STATES HISTORY
Course Number: SS3300
Prerequisites: None
Grade Level: 11
Credit: ½ credit per semester (+1.0 weighted credit)
This is a rigorous Advanced Placement course designed to provide students with the analytic skills and factual knowledge necessary to deal critically with problems in U.S. History. Students will learn how to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. Students will write extensively to perfect their essay writing and critical thinking skills. All students take the SOL test for Virginia and United States History and must pass it to earn a verified credit toward graduation. Students also prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. This course will satisfy the U.S. and Virginia History credit requirement for the diploma. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

UNITED STATES & VIRGINIA GOVERNMENT
Course Number: SS4100, SS4200
Prerequisites: None
Grade Level: 12
Credit: ½ credit per semester (+0.5 weighed credit for Honors)
This course will provide students with knowledge of Virginia and United States Government that will enable them to participate effectively in civic life in America. Students will examine fundamental constitutional principles; the organization of government at the federal, state, and local level; the rights and responsibilities of citizenship; the policy-making process; political parties and elections; comparative government and foreign policy; and the American economic system. In the Honors level course, students write and think critically in order to obtain a deeper understanding government and economics.
AP UNITED STATES GOVERNMENT
Course Number: SS4300
Prerequisites: None
Grade Level: 12
Credit: ½ credit per semester (+1.0 weighted credit)
This rigorous Advanced Placement course focuses on the various institutions, groups, beliefs, and ideas that constitute United States politics. Students will gain an analytical perspective on government and politics in the United States both by studying the general concepts used to interpret U. S. politics and by analyzing specific examples. Students will learn how to analyze and interpret basic data relevant to U. S. government and politics and will write extensively to perfect their essay writing and critical thinking skills. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. This course will satisfy the US Government credit requirement for the diploma. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

AP COMPARATIVE GOVERNMENT
Course Number: SS4310
Prerequisites: None
Grade Level: 12
Credit: ½ credit per semester (+1.0 weighted credit)
This is a rigorous Advanced Placement course designed to introduce students to the fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. Students will write extensively to perfect their writing and thinking skills. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. This is an elective course.

INTRODUCTORY PSYCHOLOGY
Course Number: SS5100
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
Introductory Psychology is a beginning study of the subject of psychology. Some of the topics studied are principles of learning, types of personality, understanding human behavior, patterns of behavior, emotional and behavioral adjustments, group influences and psychology and society. This is an elective course.

AP PSYCHOLOGY
Course Number: SS5300
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
This is a rigorous Advanced Placement course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and animals. Students are exposed to psychological facts, principles and phenomena associated with each of the major subfields of psychology. They also learn about the ethics and methods psychologists use in their science and practice. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college. This is an elective course.

SOCIOLOGY
Course Number: SS5400
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
Sociology is the study of human relationships. Topics include the family, social groups, minorities, propaganda, education and rural and urban problems. This is an elective course.
PSYCHOLOGY IN FILM
Course Number: SS5009
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit
This course presents a study of the major topics of psychology using the medium of film. Students will study concepts and then see a demonstration of these concepts in modern film. Students will do research, write critiques and do project presentations. This is an elective course. This is a one semester course.

INTERNATIONAL RELATIONS
Course Number: SS5619
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit
International Relations is a one-semester course that includes the study of the nation, state and international law. Areas studied include are Europe, China, the Far East, the Middle East, Africa and Latin America. Students also study the United Nations – its history and development, structure and problems. This is an elective course. This is a one semester course.

HONORS AMERICAN FOREIGN POLICY
Course Number: SS5629
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit (+0.5 weighted credit)
This course will provide students with the opportunity to gain insight into the complexities of American foreign policy, the roles of various groups in formulating policy and the major developments in American foreign policy from the end of World War II to the present. This is an elective course. This is a one semester course.

PRACTICAL LAW
Course Number: SS5639
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit (may be repeated)
Practical Law is designed to provide students with a basic knowledge of the law as it applies to them as citizens of the United States and the commonwealth of Virginia. Utilization of case studies and community resources is emphasized. This is an elective course. This is a one semester course.

A MULTICULTURAL WORLD
Course Number: SS5659
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit
This course explores the diversity of the American people. Students will study cultural groups, identify ancestral roots, learn about American immigration, study minority group experiences, investigate prejudice and unite in a celebration of differences and similarities. This is an elective course. This is a one semester course.
World Language Courses
World Language courses are delivered in a specified sequence of study. The first year has no prerequisite. Each succeeding year, however, is dependent upon the previous year's learning. No two courses in the sequence may be taken concurrently.

INTRODUCTION TO WORLD LANGUAGES
Course Number: 6th – RN6WL, 7th – WL7409
Prerequisites: None
Grade Level: 6, 7
This course will provide students with an introduction to French, German and Spanish languages and related cultures, and may be offered as a one quarter, one semester or full year course.

SPANISH IA & IB
Course Number: IA – WL7010, IB – WL8020
Prerequisites: None
Grade Level: 7, 8
Credit: ½ credit per year
Successful completion of both Spanish IA in 7th grade and Spanish IB in 8th grade is the equivalent of Spanish I taken as a one-year course in 8th grade or high school. A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures.

FRENCH IA & IB
Course Number: IA – WL7110, IB – WL8120
Prerequisites: None
Grade Level: 7, 8
Credit: ½ credit per year
Successful completion of both French IA in 7th grade and French IB in 8th grade is the equivalent of French I taken as a one-year course in 8th grade or high school. A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also offer students a better understanding of the French-speaking world.

GERMAN IA & IB
Course Number: IA – WL7210, IB – WL8220
Prerequisites: None
Grade Level: 7, 8
Credit: ½ credit per year
Successful completion of both German IA in 7th grade and German IB in 8th grade is the equivalent of German I taken as a one-year course in 8th grade or high school. A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries.

SPANISH I
Course Number: WL8000
Prerequisites: None
Grade Level: 8
Credit: ½ credit per semester
Spanish I in the 8th grade is equivalent to Spanish I at the high school. A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures.
**FRENCH I**
Course Number: WL8100  
Prerequisites: None  
Grade Level: 8  
Credit: ½ credit per semester  
French I in the 8th grade is equivalent to French I at the high school. A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also offer students a better understanding of the French-speaking world.

**GERMAN I**
Course Number: WL8200  
Prerequisites: None  
Grade Level: 8  
Credit: ½ credit per semester  
German I in the 8th grade is equivalent to German I at the high school. A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries.

**SPANISH I, II, III, IV & AP**
Prerequisites: Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.  
Grade Level: 9-12  
Credit: ½ credit per semester (+0.5 weighted credit for IV and +1.0 weighted credit for AP)  
A sequence of five years of Spanish courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. Students also gain an understanding of various Spanish-speaking cultures. Separate sections of Spanish for native speakers may be available. AP Spanish students prepare for and take the College Board’s Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

**FRENCH I, II, III, IV & AP**
Prerequisites: Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.  
Grade Level: 9-12  
Credit: ½ credit per semester (+0.5 weighted credit for IV and +1.0 weighted credit for AP)  
A sequence of five years of French courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. The courses also offer students a better understanding of the French-speaking world. AP French students prepare for and take the College Board’s Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

**GERMAN I, II, III, IV & AP**
Prerequisites: Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.  
Grade Level: 9-12  
Credit: ½ credit per semester (+0.5 weighted credit for IV and +1.0 weighted credit for AP)  
A sequence of five years of German courses is available. The emphasis in these courses is on the development of listening, speaking, reading, and writing skills in the target language. The courses also provide students with an understanding of the cultures of German-speaking countries. AP German students prepare for and take the College Board’s Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.
LATIN I, II, III & AP
Prerequisites: Level I – none; Levels II-AP – Successful completion of previous levels or equivalent.
Grade Level: 9-12
Credit: ½ credit per semester (+1.0 weighted credit for AP)
OFFERED ONLY AT MENCHVILLE HS
A sequence of four years of Latin courses is available. The beginning courses emphasize the fundamental principles of the language. Students are provided a working knowledge of the facts and terminology of both English and Latin. Students develop the ability to read and comprehend Latin. The works of Latin authors are read and, in the fourth year, students are introduced to the poetry and prose of Virgil and Cicero. AP Latin students prepare for and take the College Board’s Advanced Placement Test, and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

Art Courses

ART GRADE 6
Course Number: AR6009
Prerequisites: None
Grade Level: 6
Art Grade 6 is an exploration of the elements of art and the principles of design as a framework, students investigate a variety of experiences and concepts. Students explore various two-dimensional and three-dimensional art media using a variety of expressive and technical approaches.

ART GRADE 7
Course Number: AR7009, AR7300, AR7301, AR7302
Prerequisites: None
Grade Level: 7
Art Grade 7 emphasizes exploration of the creative process through analysis of the elements of art and the principles of design. Students develop technical skills that empower them to communicate ideas visually, with the focus on realistic representations of their environment.

ART GRADE 8
Course Number: AR8009, AR8300, AR8301, AR8302
Prerequisites: None
Grade Level: 8
Art Grade 8 emphasizes application of more complex technical skills as students manipulate the elements of art and the principles of design, art media and ideas. Students acquire art skills that enable them to make conscious choices of media and techniques for expressive purposes.

ART I: FOUNDATIONS OF ART
Course Number: AR0100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
Art I: Foundations of Art emphasizes the development of abilities to recognize visual arts content and concepts. Students will develop skills to create, discuss and understand original works of art. Students will maintain a portfolio documenting their accomplishments.
ART 2D: DRAW/PAINT
Course Number: AR0200
Prerequisites: Art I: Foundations or successful completion of Visual Art SIA with recommendation of art teacher.
Grade Level: 9-12
Credit: ½ credit per semester
Art 2D: Draw/Paint is an intermediate level course that emphasizes the importance of content, concepts and skills involved in the creation of original works of art. The student will demonstrate his/her understanding of mark making and design principles as applied to two-dimensional surfaces. Two-dimensional media may include drawing, painting, printmaking, mixed media and/or digital processes. In addition, art history, critical evaluation and aesthetics issues will be addressed. Students will continue to maintain a portfolio and select representative work to take to the next level of study.

ART 3D: SCULPTURE/CRAFTS
Course Number: AR0300
Prerequisites: Art I: Foundations of Art or successful completion of Visual Art SIA with recommendation of art teacher.
Grade Level: 9-12
Credit: ½ credit per semester
Art 3D: Sculpture/Crafts is an intermediate level course intended to address engagement with physical space and materials. In this course, the student should demonstrate his/her understanding of design principles as they relate to depth and space. The course emphasizes the importance of content, concepts, and skills involved in the creation of original works of art. Included are components of art history, critical evaluation and aesthetics. Selected works of art and other products will be added to the portfolio and carried forward to the next level of study.

INTRODUCTORY ART
Course Number: AR0019
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit
Introductory Art is a one-semester exploratory course designed to appeal to pupils who have little background knowledge in visual art. In the course students experience a variety of art media to further their appreciation of visual arts. It is not to be considered an alternative to Art I, nor can it count toward the sequential art program. This is a one semester course.

COMPUTER ART I
Course Number: AR1100
Prerequisites: Art I: Foundations of Art or recommendation of art teacher
Grade Level: 9-12
Credit: ½ credit per semester
Computer Art I is a two-semester course focusing on the development of skills necessary to utilize standard computer tools and software in the creation of visual art, graphic designs and imaging. The course will focus on basic art design concepts, personal expression and creative problem solving. In addition, it will provide students with experiences exploring careers in the field of computer graphics.

COMPUTER ART II
Course Number: AR1200
Prerequisites: Computer Art I or recommendation of art teacher
Grade Level: 10-12
Credit: ½ credit per semester
Computer Art II is a two-semester course that will continue to develop skills and provide experiences needed to enter career fields in visual arts, computer graphics and animation. Greater emphasis will be placed on creative problem solving and career simulation assignments. Students will maintain a digital portfolio.
AP ART HISTORY
Course Number: AR3300
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
AP Art History is a comprehensive study of the history of art. The course includes study of architecture, painting, sculpture, and other art forms, within cultural and historical contexts. Students will examine the major forms of artistic expression in the past and present, including our own and that of other cultures. Students will learn to express opinions, conduct research, and to compare and contrast styles verbally and in writing. Students prepare for and take the College Board’s Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

ADVANCED ART PORTFOLIO DEVELOPMENT STUDIO
Course Number: AR3100
Prerequisites: 2 credits in art; teacher recommendation and portfolio demonstrating serious interest and proficiency in art production
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
This course is designed for students who plan to continue to an Advanced Placement Studio Art course and/or make art or an art related subject a college or career choice. Students will develop technical and conceptual art making skills. 2D and 3D techniques, art history, art appreciation, and related areas of art are explored and developed. Students will work with the teacher to develop an individualized plan of instruction based on areas of artistic interest. Students are required to develop a portfolio of original ideas demonstrating a personal focus for art production.

AP STUDIO ART: 2D DESIGN
Course Number: AR3210
Prerequisites: 2 credits in Art; teacher recommendation and portfolio demonstrating advanced art skills
Grade Level: 10-12
Credit: ½ credit per semester (+1.0 weighted credit)
The portfolio for AP 2D Design is intended to address two-dimensional (2D) design issues. The unifying idea for the portfolio is that the student focuses on making decisions about how to use the elements of art and principles of design to create works of art that convey meaning. Any two-dimensional medium may be used for this portfolio. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).

AP STUDIO ART: 3D DESIGN
Course Number: AR3220
Prerequisites: 2 credits in Art, teacher recommendation and portfolio demonstrating advanced art skills
Grade Level: 10-12
Credit: ½ credit per semester (+1.0 weighted credit)
The portfolio for AP 3D Design is intended to address three-dimensional (3D) design issues. Works that are submitted for this portfolio explore depth and space by addressing issues related to mass, volume, and form. The focus is on using the elements of art and principals of design to create 3D works of art that convey meaning. Any three-dimensional medium may be used for this portfolio. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).
AP STUDIO ART: DRAWING  
Course Number: AR3230  
Prerequisites: 2 credits in Art, teacher recommendation and portfolio demonstrating advanced art skills  
Grade Level: 10-12  
Credit: ½ credit per semester (+1.0 weighted credit)  
In AP Drawing, portfolio mastery of drawing may be demonstrated through a wide range of approaches and media. The unifying focus for this portfolio is the exploration of art that involves direct mark making on a surface. Light and shade, line quality, rendering of form, composition, surface manipulation and the illusion of depth are among the drawing issues that can be addressed. Each student develops and submits a portfolio that serves as a direct demonstration of achievement. The course guidelines are based on AP portfolio requirements. Coursework includes hands-on project development as well as research and writing assignments. The course is designed for the art student who wishes to pursue college-level study while still in high school, and for the student who is seriously interested in the practical experience of art. Students are required to keep a portfolio and research workbook (journal/sketchbook).

INTRODUCTORY PHOTOGRAPHY  
Course Number: AR0029  
Prerequisites: Successful completion of Art I or art teacher recommendation  
Grade Level: 9-12  
Credit: ½ credit  
This course is a basic introduction to photography designed to be completed in one semester. Students will learn how to see the world through the camera and utilize photography as an image-making medium. The course introduces the functions of the single lens reflex camera and basic darkroom procedures for developing and printing black and white film. Students will investigate new technologies utilizing the digital image and the computer. This is a one semester course.

PHOTOGRAPHY I  
Course Number: AR3400  
Prerequisites: Successful completion of Art I Foundations, Introductory Photography or teacher recommendation  
Grade Level: 10-12  
Credit: ½ credit per semester  
Photography I is an introductory course in basic darkroom techniques including contact printing, film processing, enlarging, chemical mixing, print mounting and finishing, and darkroom safety. Students will learn the operations and functions of the 35mm manual camera. In addition, the course will explore the history of photography and integrate technical knowledge with aesthetic approaches.

PHOTOGRAPHY II  
COURSE NUMBER: AR3420  
Prerequisites: Successful completion of Photography I  
Grade Level: 10-12  
Credit: ½ credit per semester  
Photography II is designed for students who have received credit for one full year of photography. Students investigate new areas in photographic media and often have a choice of camera formats and technologies for in-depth exploration. Emphasis is on thematic exploration for personal expression and on building a photographic portfolio.

DIGITAL PHOTOGRAPHY  
Course Number: AR0039  
Prerequisites: Art I Foundations, Introductory Photography, SIA or teacher recommendation  
Grade Level: 9-12  
Credit: ½ credit  
Students will explore the creative possibilities of their digital cameras from a fine art approach. Emphasis will be placed on composition, lighting and subject choices. Traditional photo editing with basic computer software will be introduced. Students will be required to save all work in a digital portfolio. Students may repeat this course a second semester to advance skills. This is a one semester course.
INTRODUCTORY CERAMICS
Course Number: AR0049
Prerequisites: Successful completion of Art I Foundations or teacher recommendation
Grade Level: 9-12
Credit: ½ credit
Ceramics is a semester course focusing on the introduction of hand-built pottery methods. Relief and sculptural techniques will be explored. This is a one semester course.

CERAMICS
Course Number: AR0400
Prerequisites: Successful completion of Art I Foundations or teacher recommendation
Grade Level: 9-12
Credit: ½ credit per semester
Ceramics is a full year course beginning with traditional hand built pottery methods and exploring the discipline of wheel throwing in ceramics production. Basic glaze and glaze chemistry will be covered. These techniques will be explored in the context of ceramic art historically and in contemporary art forms. This course also explores the use of ceramic materials in the larger context of sculptural possibilities. An emphasis on research and introspection is expected through the development of a personal portfolio.

VIDEO ART
Course Number: AR0059
Prerequisites: Successful completion of Computer Art I or teacher recommendation
Grade Level: 10-12
Credit: ½ credit
OFFERED ONLY AT WOODSIDE HS
This is an introductory course in basic video editing and production relating to the creation of video as art. Students will explore the possibilities of video as an art form that can be used for communication on websites, as well as for installations in art galleries. This is a one semester course.

WEB DESIGN FOR THE VISUAL ARTIST
Course Number: AR0069
Prerequisites: Successful completion of Computer Art I or teacher recommendation
Grade Level: 10-12
Credit: ½ credit
OFFERED ONLY AT WOODSIDE HS
This course involves the production of websites as a form of communication between the artist and his/her audience. Students will learn basic photo editing, text manipulation, composition, and the organizational skills necessary to build a professional quality website. In addition, students will prepare their own art images creating digital portfolios, accompanying artist statements, resume and biography to be used in production of web pages promoting their personal art. This is a one semester course.

Music Courses

CHORUS GRADE 6
Course Number: MU6009
Prerequisites: None
Grade Level: 6
Chorus Grade 6 introduces fundamental vocal development, traditional notation, and the introduction to ensemble singing. This course requires performance, creativity and investigation at a fundamental level.

CHORUS GRADE 7
Course Number: MU7009, MU7010
Prerequisites: None
Grade Level: 7
Chorus Grade 7 emphasizes fundamental vocal development, traditional notation and the introduction to ensemble singing. This course requires performance, creativity and investigation at a fundamental level.
CHORUS GRADE 8
Course Number: MU8009, MU8010
Prerequisites: None
Grade Level: 8
Chorus Grade 8 emphasizes developing good fundamental vocal tone quality, traditional notation, ensemble singing and introduction to discriminative listening. Students are required to participate in performances as part of the course.

BAND GRADE 6
Course Number: MU6100
Prerequisites: None
Grade Level: 6
Students will begin instruction on a band instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read and perform the beginning level of music being studied.

BAND GRADE 7
Course Number: MU7100, MU7110
Prerequisites: None
Grade Level: 7
Students may begin or continue instruction on a band instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the intermediate level of music being studied.

BAND GRADE 8
Course Number: MU8100, MU8110
Prerequisites: Band Grade 6 and/or 7 or with instructor approval
Grade Level: 8
Students will continue instruction on a band instrument of their choice. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the advanced level of music being studied.

ORCHESTRA GRADE 6
Course Number: MU6210
Prerequisites: None
Grade Level: 6
Students will begin instruction on a string instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the beginning level of music being studied.

ORCHESTRA GRADE 7
Course Number: MU7210, MU7220
Prerequisites: None
Grade Level: 7
Students may begin or continue instruction on a string instrument. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the intermediate level of music being studied.

ORCHESTRA GRADE 8
Course Number: MU8220, MU8230
Prerequisites: Orchestra Grade 6 and/or 7, or with instructor approval
Grade Level: 8
Students will continue instruction on a string instrument of their choice. Students will demonstrate proper care of the instrument and will be familiar with the technology of the instrument. They will demonstrate basic positions, tone production and fingerings, and will count, read, and perform the advanced level of music being studied.
GENERAL MUSIC GRADE 6
Course Number: MU6300
Prerequisites: None
Grade Level: 6
General Music Grade 6 is a basic music appreciation course. Students develop an appreciation of music and of music skills through singing, playing instruments, moving and listening.

GENERAL MUSIC GRADE 7
Course Number: MU7300
Prerequisites: None
Grade Level: 7
General Music Grade 7 is a basic music appreciation course. Students develop an appreciation of music and of music skills through singing, playing instruments, moving and listening.

GENERAL MUSIC GRADE 8
Course Number: MU8300
Prerequisites: None
Grade Level: 8
General Music Grade 8 is a music appreciation course. Students develop an appreciation of music and of music skills through singing, playing instruments, moving and listening. Students will explore the creative and expressive aspects of music through composing and arranging.

MIXED CHORUS
Course Number: MU0100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
This course is the high school entry-level course to the vocal music program. Emphasis is placed on developing good vocal tone quality, introduction to reading musical scores, discriminative listening and the study of good choral literature. Students are required to participate in in-school and evening performances as part of the course. In addition, students may be required to audition for district and state music ensembles when appropriate.

TREBLE CHORUS: TENOR, BARITONE & BASS CHORUS
Course Number: MU0200, MU0300
Prerequisites: Successful completion of middle school chorus or music teacher recommendation
Grade Level: 9-12
Credit: ½ credit per semester
Chorus instruction stresses the expression of music through the art of singing. The classes include vocal training, instruction in reading vocal music and the study and use of a broad range of music literature. Activities include public performances that will be required as part of each course. In addition, students must audition for district and state music ensembles when appropriate.

A CAPPELLA CHOIR
Course Number: MU0400
Prerequisites: Successful completion of Mixed Chorus or music teacher recommendation (audition required)
Grade Level: 10-12
Credit: ½ credit per semester (0.5 weighted credit)
A Cappella Choir is a select choir which stresses the expression of music through the art of singing in a large ensemble. Emphasis is placed on the development of tone quality in the voice, blend and balance, sight-reading proficiency, ear training, expansion of range, proper vocal production and the ability maintain three and four part music. Rehearsals and performances outside the regular school day will be scheduled and will be required. Students must participate in formal concerts, audition for district and state ensembles when appropriate, and participate in choral assessment performing level III-V music.
SHOW CHOIR
Course Number: MU0500
Prerequisites: Successful completion of Treble Chorus or A Cappella Choir, audition or choral teacher recommendation
Grade Level: 11, 12
Credit: ½ credit per semester (+0.5 weighted credit)
This course emphasizes musical communication through the use of voice and dance in a large ensemble. Emphasis is placed on vocal tone, blend and balance, the ability to maintain three and four part music while performing choreographed movement. Students will perform custom arranged contemporary music as well as choral literature graded III-VI. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements of the course. Students are required to participate in formal concerts, audition for district and state ensembles when appropriate, and participate in competitions when available.

VOCAL ENSEMBLE
Course Number: MU0600
Prerequisites: Successful completion of Treble Chorus, A Cappella Choir, audition or choral teacher recommendation
Grade Level: 11, 12
Credit: ½ credit per semester (+0.5 weighted credit)
Vocal Ensemble emphasizes musical communications through the use of the voice, individually and in small ensembles. Instruction includes ear training and sight singing in addition to advanced vocal techniques to include interpretation of the vocal score. Rehearsals and performances outside the regular school day will be scheduled and will be required. Students must participate in formal concerts, audition for district and state ensembles when appropriate, and participate in choral assessment performing level IV-VI music. Students will be required to create choral compositions based on learned music theory. In addition, students will develop a portfolio of their best work to include demonstration of different genres of music performance.

INTERMEDIATE BAND: INTERMEDIATE WOODWIND, BRASS, & PERCUSSION
Course Number: MU1100, MU1110, MU1120, MU1130
Prerequisites: Successful completion of two years of middle school band or completion of a high school band class and teacher recommendation.
Grade Level: 9-12
Credit: ½ credit per semester
An active band program is available to high school students who wish to develop proficiency on an instrument through class instruction and performance in the school band. Students will develop artistic proficiency through performance of instrumental works at a minimum VBODA grade III that demand solo quality tone and sensitive interpretation with attention to the intricacies of their instrument. Rehearsals are considered as a lab to instructional periods and are scheduled each week during school and for a minimum of 2 weeks in August. The instructional and rehearsal sessions culminate in performances, including concert and marching activities, which are required to fulfill the requirements of the course. Students are required to audition for city, district, and state event ensembles when appropriate.

ADVANCED BAND: ADVANCED WOODWIND, BRASS, & PERCUSSION
Course Number: MU1200, MU1210, MU1230
Prerequisites: Successful completion of high school intermediate level or director recommendation.
Grade Level: 9-12
Credit: ½ credit per semester (+0.5 weighted credit)
Students will continue instruction on the instrument of their choice focusing on solo quality tone, intonation and technique. Student will develop artistic proficiency through performance of instrumental works at a minimum VBODA grade IV. Rehearsals are considered as a lab to instructional periods and are scheduled each week during school and for a minimum of two weeks in August. The instructional and rehearsal sessions culminate in performances, including concert and marching activities, which are required to fulfill the requirements of the course. Students are required to audition for city, district, and state ensembles.
SYMPHONIC BAND
Course Number: MU1300
Prerequisites: Successful completion of high school advanced band class and band director recommendation
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
Symphonic Band is the most advanced class in instrumental music artistry. Advanced music literature, VBODA grade V and VI will be studied through performance in a symphonic wind and percussion ensemble of a professional caliber. Rehearsals are considered as a lab to instructional periods and are scheduled each week during the school and for a minimum of two weeks in August. Activities include concert and marching band, to include public performances that are required to fulfill the requirements of the course. In addition, students must audition for city, district, and state ensembles.

JAZZ ENSEMBLE
Course Number: MU1400
Prerequisites: Successful completion of high school intermediate woodwind, brass or percussion classes, or equivalent band course, or director recommendation.
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
Jazz Ensemble is a course for advanced students interested in a thorough study and performance of modern contemporary music. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements for the course. In addition, students must audition for district and state music ensembles when appropriate. Advanced music literature comparable to VBODA IV-VI will be studied through performance.

INTERMEDIATE ORCHESTRA
Course Number: MU2100
Prerequisites: Successful completion of previous orchestra class or orchestra teacher recommendation
Grade Level: 9-12
Credit: ½ credit per semester
The orchestra program is designed to help the student develop the knowledge, skills and techniques necessary to express him/herself musically through the medium of a string instrument of the orchestra. Members of the class are expected to perform in the orchestra as a soloist and as a member of small or large ensembles. At least one after-school rehearsal is scheduled each week as a laboratory for the instructional periods. The instructional and rehearsal sessions culminate in concert performances that are required to fulfill the requirements of the course. Minimal performance level expected is VBODA grade III & IV. Students are expected to audition for city and regional events. Study will include music theory and history as appropriate for grade III literature. Students will be required to take a written and performance exam at the end of the semester.

ADVANCED ORCHESTRA
Course Number: MU2200
Prerequisites: Intermediate Orchestra or teacher recommendation
Grade Level: 10-12
Credit: ½ credit per semester (+0.5 weighted credit)
Members of the advanced class are expected to perform in the orchestra as a soloist and as a member of small or large ensembles. At least one after-school rehearsal is scheduled each week as a laboratory for the instructional periods. Instructional and rehearsal sessions culminate in concert performances that are required to fulfill the requirements of the course. Minimal performance level expected is VBODA grade V & VI. In addition, students must audition for city, regional, district and state events when eligible. Study will include music theory and history as appropriate for grade V & VI orchestra literature. Students will be required to take a written and performance exam at the end of the semester and are expected to develop a portfolio of performance material.
BEGINNING & INTERMEDIATE GUITAR  
Course Number: MU3000, MU3100  
Prerequisites: Provision of personal instrument requested  
Grade Level: 9-12  
Credit: ½ credit per semester  
The guitar program teaches the fundamentals of music, note reading, and music theory, which are used as the basis of study while finger dexterity is being developed. The more advanced students extend their ability to read music for the guitar in a variety of musical styles. Various picking and strumming styles are developed in addition to different tunings, more difficult chords, and solo guitar selections. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill requirements for the course. Beginning Guitar will perform Grade I-III level arrangements. Intermediate level requirement includes Grade II-V arrangements.

ADVANCED GUITAR  
Course Number: MU3200  
Prerequisites: Completion of Intermediate or Guitar Teacher recommendation  
Grade Level: 10-12  
Credit: ½ credit per semester (+0.5 weighted credit)  
Advanced students will continue developing prior competencies in musicianship to demonstrate advanced proficiency. Rehearsals and performances outside the regular school day will be scheduled and will be required to fulfill the requirements for the course. Students will be required to perform chamber and solo music as well as personal compositions. Advanced level musical selections range from Grade V-VI level arrangements.

MUSIC THEORY  
Course Number: MU4100  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit per semester  
Music theory I includes ear training, basic theory, and principles of musicianship and harmony in addition to basic keyboard skills. There are exercises in writing simple rhythmic, melodic and chord progressions and in acquiring proficiency on an instrument of the student’s choice. In addition, students will be required to develop a portfolio of “best work” across all content areas.

AP MUSIC THEORY  
Course Number: MU4200  
Prerequisites: Music Theory I or teacher recommendation  
Grade Level: 10-12  
Credit: ½ credit per semester (+1.0 weighted credit)  
AP Music Theory continues to emphasize ear training and principles of harmony. Students are expected to write and harmonize melodies in major and minor keys. Musical form is studied through the analysis of music scores and composition and the keyboard capability extends to performance of simple four-part harmony. Discriminate listening and aural analysis will be included. In addition, students will be required to develop a portfolio of “best work” across all content areas. Students prepare for and take the College Board's Advanced Placement Test and those who receive an acceptable score on the test may receive college credit and/or advanced standing in college.

PIANO PERFORMANCE I, II & III  
Course Number: MU5310, MU5320, MU5330  
Prerequisites: Teacher recommendation  
Grade Level: 9-12  
Credit: ½ credit  
PIANO PERFORMANCE III OFFERED ONLY AT WOODSIDE HS  
Piano performance emphasizes accurate keyboard and technical skills, such as scales, arpeggios, and other techniques. This course incorporates concepts of technique, including music theory appropriate to the student. Rehearsals and performances outside of the regular school day will be scheduled and will be required to fulfill requirements of the course. Performance I students will learn and perform Grade I & II arrangements, Performance II students will learn and perform Grade III & IV arrangements, and Performance III students will learn and perform Grade V & VI arrangements.
Theatre Courses

DRAMA GRADE 6
Course Number: EE6009
Prerequisites: None
Grade Level: 6
Drama Grade 6 is designed to provide students with an introduction to the study of theatre history, literature and production. This course prepares students for further theatrical study and nurtures an appreciation for the many forms of theatre.

DRAMA GRADE 7
Course Number: EE7009, EE7010, EE7011, EE7012
Prerequisites: None
Grade Level: 7
Drama Grade 7 is designed to provide students with an introduction to the study of theatre history, literature and production. Through research, planning, scripting, production, and performance experiences, students acquire skills in communicating ideas, critical thinking and collaborative problem solving.

DRAMA GRADE 8
Course Number: EE8009, EE8010, EE8011, EE8012
Prerequisites: None
Grade Level: 8
Drama Grade 8 is designed to provide students with an introduction to the study of theatre history, literature and production. Through research, planning, scripting, production, and performance experiences, students acquire skills in communicating ideas, critical thinking, and collaborative problem solving. This course prepares students for further theatrical study and nurtures an appreciation for the many forms of theatre.

DRAMA I
Course Number: EE0100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
Drama I includes an overview of the structure of drama, the basic mechanics of acting, history of theatre, varieties of theatre, dramatic criticism, techniques of stage direction, elements of play production and contemporary theatre awareness.

DRAMA II
Course Number: EE0200
Prerequisites: Successful completion of Drama I
Grade Level: 10-12
Credit: ½ credit per semester
Drama II includes a study of the American theatre, the types and styles of theatre, dramatic criticism, stage and acting terms, intermediate acting techniques, play directing and technical and contemporary theatre awareness.

DRAMA III
Course Number: EE0300
Prerequisites: Successful completion of Drama II Grade Level: 11, 12
Credit: ½ credit per semester
Drama III includes instruction in advanced acting, dramatic criticism, stage and acting terms, types and styles of dramas, play writing, directing, theatre maintenance, technical theatre and contemporary performing arts.
DRAMA STAGECRAFT  
Course Number: EE0400  
Prerequisites: None  
Grade Level: 10-12  
Credit: ½ credit per semester  
Drama Stagecraft concentrates on the technical aspects of theatre and play production. The course content includes scenic design and set construction, lighting design and execution, costume and make-up design, properties and property design, special effects, sound techniques, stage terms, stage management, stage personnel duties, business management and types of stages.

Health and Physical Education Courses

6TH GRADE PHYSICAL EDUCATION & HEALTH  
Course Number: PE6000  
Prerequisites: None  
Grade Level: 6  
The middle school physical education curriculum provides students the opportunity to acquire the knowledge, processes, and skills to become physically educated, physically fit, and responsible in their physical activity choices and behaviors. Students will engage in meaningful physical activity in team sports, lifetime sports, and recreational activities that promote personal enjoyment, challenge, and a health-enhancing level of personal fitness. The health education curriculum addresses health, personal development, risky behaviors and safety topics for the middle school population. The program is designed to help students understand how to achieve and maintain good health for a lifetime. The Family Life curriculum as well as Life Skills are taught during the health classes.

7TH GRADE PHYSICAL EDUCATION & HEALTH  
Course Number: PE7000  
Prerequisites: None  
Grade Level: 7  
The middle school physical education curriculum provides students the opportunity to acquire the knowledge, processes, and skills to become physically educated, physically fit, and responsible in their physical activity choices and behaviors. Students will engage in meaningful physical activity in team sports, lifetime sports, and recreational activities that promote personal enjoyment, challenge, and a health-enhancing level of personal fitness. The health education curriculum addresses health, personal development, risky behaviors, and safety topics for the middle school population. The program is designed to help students understand how to achieve and maintain good health for a lifetime. The Family Life curriculum is taught during the health classes.

8TH GRADE PHYSICAL EDUCATION & HEALTH  
Course Number: PE8000  
Prerequisites: None  
Grade Level: 8  
The middle school physical education curriculum provides students the opportunity to acquire the knowledge, processes, and skills to become physically educated, physically fit, and responsible in their physical activity choices and behaviors. Students will engage in meaningful physical activity in team sports, lifetime sports, and recreational activities that promote personal enjoyment, challenge, and a health-enhancing level of personal fitness. The health education curriculum addresses health, personal development, risky behaviors, and safety topics for the middle school population. The program is designed to help students understand how to achieve and maintain good health for a lifetime. The Family Life curriculum is taught during the health classes.

High School Physical Education  
Students must complete two semester of physical education as part of your graduation requirement. Any classes taken on site (at your school during the regular school day) must start with Introduction to Fitness (this would include students who have completed one Outdoor Education or one Wellness & Fitness Management class off site and are completing their 2nd requirement on site). Class can also be taken off site in the summer Outdoor Education courses (at NN Park) or in our Fitness & Wellness Management courses taken after school in approved fitness centers. Both Outdoor Education and Wellness & Fitness Management have two sections and can be taken to complete the physical education requirement.
Physical Education
The following courses that are titled I or II can be taken in any order at any time unless otherwise noted by prerequisites. Two ½ credits are required in physical education and two in health education to satisfy division requirements and state standards for graduation. Courses are designed to meet student interest.

INTRODUCTION TO FITNESS
Course Number: PE1709
Prerequisites: None
Grade Level: 9
Credit: ½ credit per semester
This class will introduce students to fitness enchanting habits that can be practiced for a lifetime. The five health related components (cardiovascular fitness, muscular strength, muscular endurance, flexibility and body composition) along with the concepts and principles associated with fitness and physical activity will be stressed. Students will create a personal lifetime fitness plan based on individual needs and interest and application of their understanding of the concepts and principles.

FITNESS II
Course Number: PE2709
Prerequisites: Introduction to Fitness
Grade Level: 10, 11
Credit: ½ credit per semester
This class will continue to challenge every student to learn and practice fitness enhancing habits that can be practiced for a lifetime. The five health-related components and the six skill-related components (agility, balance, reaction time, power, coordination and speed) along with the concepts and principles associated with fitness and physical activity will be stressed. Students will update their lifetime fitness plan based on any changes in individual needs and interest.

PHYSICAL EDUCATION LIFETIME ACTIVITIES
Course Number: PE2209
Prerequisites: Introduction to Fitness
Grade Level: 10, 11
Credit: ½ credit per semester
This course is designed to develop skills for individual and potentially dual/partner activities. Activities include, but may not be limited to golf, archery, skating and cycling. Emphasis will be placed on developing a health-enhancing level of fitness as it relates to the activities and a lifetime of wellness.

PHYSICAL EDUCATION DANCE
Course Number: PE2309
Prerequisites: Introduction to Fitness
Grade Level: 10, 11
Credit: ½ credit per semester
A beginner to intermediate level course in which students will learn and perform various forms of dance that will include, but are not limited to social dances, modern, jazz and ballet. Emphasis will be placed on developing individual skills and fitness concepts and principles for a lifetime of fitness.

INDIVIDUALIZED PHYSICAL EDUCATION I
Course Number: PE1409
Prerequisites: Collaborative identification and/or recommendation by IPE staff, school counselors and physical education staff
Grade Level: 9-12
Credit: ½ credit per semester
This course is designed as a continuation of Individualized Physical Education I to allow students with a variety of medical limitations to participate in the regular physical education program with necessary modifications on an individual basis and specific to each student.
INDIVIDUALIZED PHYSICAL EDUCATION II
Course Number: PE2409
Prerequisites: PE 1409 and collaborative identification and recommendation by IPE staff, school counselors and physical education staff
Grade Level: 9-12
Credit: ½ credit per semester
This course is designed as a continuation of Individualized Physical Education I to allow students with a variety of medical limitations to participate in the regular physical education program with necessary modifications on an individual basis and specific to each student.

WELLNESS & FITNESS MANAGEMENT I
Course Number: PE1609
Prerequisites: Informational meeting with parent, prospective student and on-line instructor prior to participation. Meeting time and location TBA. Cross-enrollment through Woodside or Warwick
High School
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AS AN ON-LINE OPTION
This is an on-line cooperative venture between specified fitness centers and NNPS for PE credit. Students are expected to complete this class with limited teacher interaction requiring self-discipline and dedication. The course is identified as an 8th block class to be taken outside regular hours. Students will demonstrate the ability to use basic skills, strategies and tactics associated with physical education movement principles and concepts. Students will self-assess their skill performance and develop a personal physical activity program aimed at improvement. Students will also apply their understanding of personal fitness to lifelong participation in physical activity.

WELLNESS & FITNESS MANAGEMENT II
Course Number: PE2609
Prerequisites: Wellness & Fitness Management I and informational meeting with parent, prospective student and on-line instructor prior to participation. Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AS AN ON-LINE OPTION
This is an on-line cooperative venture between specified fitness centers and NNPS for PE credit. Students are expected to complete this class with limited teacher interaction requiring self-discipline and dedication. This is an on-line cooperative venture. The course is identified as an 8th block class to be taken outside regular hours. Students will demonstrate the ability to use basic skills, strategies and tactics associated with physical education movement principles and concepts. Students will self-assess their skill performance and develop a personal physical activity program aimed at improvement. Students will also apply their understanding of personal fitness to lifelong participation in physical activity.

OUTDOOR EDUCATION I
Course Number: PE3403
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT POINT OPTION AND DURING SUMMER SCHOOL IN TWO SEPARATE SESSIONS
Outdoor Education I provides activities designed to introduce various outdoor skills that will enhance both mental and physical well-being. Emphasis is on skill development, safety practices, responsibility, teamwork, and self-awareness through experiential learning. Skills include, but are not limited to the following: hiking, biking, canoeing, cooperative games, ropes initiatives, orienteering, camping, archery and a variety of outdoor experiences. This course is held at Newport News Park. Max enrollment: 14 students.
OUTDOOR EDUCATION II
Course Number: PE3413
Prerequisites: Outdoor Education I Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT POINT OPTION AND DURING SUMMER SCHOOL IN TWO SEPARATE SESSIONS
Outdoor Education provides activities designed to introduce various outdoor skills that will enhance both mental and physical well-being. Emphasis is on skill development, safety practices, responsibility, teamwork, and self-awareness through experiential learning. Skills include, but are not limited to the following: hiking, biking, canoeing, cooperative games, ropes initiatives, orienteering, camping, archery and a variety of outdoor experiences. This course is held at Newport News Park. Max enrollment: 14 students.

Health Education
One semester of each health class is required for graduation.

HEALTH I & HEALTH II/DRIVER EDUCATION
Course Number: PE0109, PE0239
Prerequisites: Health I must be taken BEFORE Health II/Driver Ed. and ½ credit of P.E. is recommended.
Grade Level: Health I – 9 -11; Health II/Driver Ed – 10-12
Credit: ½ credit per semester
Two semesters of Health are required for graduation. Health Education helps students to develop an understanding of total wellness – physical, mental and social. It provides skills for students to develop healthy lifestyle behaviors. Driver Education is part of Health II. Driver Education and Traffic Safety helps the student understand the qualifications, attitudes and responsibilities of a skillful driver. Emphasis is placed on identifying and managing risks, visual search, defensive driving, knowledge of the legal and financial responsibilities of driving and the development of basic habits necessary for safe and courteous operation of a vehicle.

The following courses are elective courses and may be taken after the required physical education/health courses.

SPORTS MEDICINE
Course Number: PE0300
Prerequisites: Health I and II Grade Level: 11, 12
Credit: ½ credit per semester
This course covers basic anatomy, common athletic injuries, and how to care for these injuries using taping techniques, exercise and various modalities. This class will help further education in the field of medicine and assist students in their career choice. There is a nominal supply fee for each semester. This is an elective course.

ADVANCED TEAM SPORTS
Course Number: PE3100
Prerequisites: Two semesters of physical education and recommendation of physical education staff
Grade Level: 10-12
Credit: ½ credit per semester
This course is designed to develop specific sports skills and help students learn advanced strategies associated with team play. Apply rules and regulations by officiating games in each sport. Sports may include, but are not limited to, team handball, hockey, soccer, softball, volleyball and basketball. Students will also develop an awareness of career opportunities in the fields of coaching and officiating. Fitness, sportsmanship and leadership will be areas of emphasis. This is an elective course.

PERSONAL FITNESS
Course Number: PE3200
Prerequisites: Two semesters of physical education and recommendation of physical education staff
Grade Level: 10-12
Credit: ½ credit per semester and can be taken as an elective after the two prerequisite classes are completed. May be taken for credit in multiple years.
Personal Fitness focuses on development of fitness through activities such as team and individual sports; basic, step and boxer aerobics; weight training; circuit training; and power walking. Students will also develop personal fitness goals related to nutrition, weight management and disease prevention. This is an elective course.
DANCE/FITNESS
Course Number: PE3300
Prerequisites: Two semesters of physical education and recommendation of physical education staff
Grade Level: 10-12
Credit: ½ credit per semester
Emphasis will be placed on various types of dance and fitness related activities. Personal fitness goals will be developed and implemented. Nutrition, weight training, aerobics and disease prevention will be included. This is an elective course.

TECHNIQUES OF DANCE I, II & III
Course Number: PE3510, PE3520, PE3530
Prerequisites: Instructor placement
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will receive technical training in Modern Dance, Ballet and Jazz. Emphasis is given to the performing aspect of dance. As students proceed to level II, they will explore anatomy and injury prevention as relevant to the dancer. Students will begin to explore basic choreography concepts in level III.

CHOREOGRAPHY
Course Number: PE3540
Prerequisites: Instructor placement
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will learn the choreographic group devices during the first semester and individual choreographic projects during the second semester, while still maintaining technique learned in previous levels.

WORLD DANCE
Course Number: PE3550
Prerequisites: Instructor placement & Techniques of Dance II
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will focus on a variety of world dance forms, including Flamenco, Balinese and African Diasporic dances. Students must have completed Techniques of Dance II prior to enrollment, and this class may be used as a physical education credit.

HISTORY OF DANCE
Course Number: MC4010
Prerequisites: Techniques of Dance I & II or both Dance/P.E. I & II
Grade Level: 11, 12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
The course is designed to cover the history of dance throughout various historical eras, as dance is a direct reflection of what is happening in society. Students will discuss how world events (wars, immigration, cultural practices and environment) help to shape the world of dance today. The course will also look at the codified methods of analyzing dance in terms of special awareness and the use of muscles, and how the bones and muscles work in conjunction to create unique human movement. The class will conclude with rhythmic analysis of music and rhythms and working with musical scores to create choreography. This is a required elective for the Dance Magnet.
DANCE COMPANY
Course Number: PE3560
Prerequisites: Instructor placement
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will focus on creation and rehearsal of pieces for performance both in school and in the community. Placement is based on audition only. Students may be concurrently enrolled in another technical level.

Military Science/Aerospace Science (Junior ROTC) Courses

JUNIOR ROTC COURSES I, II, III & IV
Course Number: MS1000, MS2000, MS3000, MS4000
Aerospace Science at Menchville: MS1010, MS2010, MS3010, MS4010
Prerequisites: Senior Instructor recommendation for course IV
Grade Level: 9-12
Credit: ½ credit per semester
JROTC is offered at several high schools. Four levels of the course are available and are designed to instill the values of citizenship, service and personal responsibility and to instill a sense of accomplishment. Instruction covers military history, management, leadership and customs and courtesies. Numerous extracurricular opportunities are available to cadet corps members including honorary societies, drill/color guard teams and athletics/physical fitness activities. Enrolled students must maintain acceptable standards of appearance, conduct and academic achievement. Cadets can compete for 3 and 4-year college scholarships. JROTC course IV is an optional course designed for the Cadet corps. Enrollment is selective and requires senior instructor recommendation.

Career & Technical Education Courses

Aviation
The following courses are offered only at the Aviation Academy.

AEROSPACE TECHNOLOGY I
Course Number: AV0100
Prerequisites: None
Grade: 9-12
Credit: ½ credit per semester
This course is designed to be an introduction with basic knowledge of the career field of aerospace. Students will learn about the history of aviation, principles of flight, careers in aviation and aerospace.

AEROSPACE TECHNOLOGY II
Course Number: AV0200
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
This course is designed to introduce students to aviation composites and materials for structure. Students will explore design features of aircraft through drawings and blueprints, aircraft materials and processes, weight and balance procedures, and fluid lines and fittings.
ELECTRONICS/INDUSTRIAL ROBOTICS TECHNOLOGY
Course Number: AV4100
Prerequisites: Algebra I
Grade Level: 9-12
Credit: ½ credit per semester
Students will complete the computer base learning (NIDA) curriculum with a basic understanding of Direct and Alternating current circuits, series and parallel circuit arrangements, and their applications. The student should understand the effect of resistance, capacitance, and inductance on an AC circuit, and how a transformer works. Students will understand the operation of the multimeter and its use in circuit troubleshooting. Much emphasis is placed on safety.

ELECTRONICS TECHNOLOGY
Course Number: AV4200
Prerequisites: Electronics/Industrial Robotics Technology
Grade Level: 10-12
Credit: ½ credit per semester
Students should complete this computer base learning (NIDA) curriculum with a basic understanding of the verification of the theory of active devices and circuits such as diodes, power supplies, transistors and amplifiers. They will also be introduced to the skill of reading systematic and troubleshooting skills. This will include symbols, modes of failure, schematics and physical wiring diagrams and basic use of test instruments.

AVIATION MAINTENANCE TECHNICIAN TECHNOLOGY I WITH LAB
Course Number: AV0300, AV2100
Prerequisites: Physics
Grade Level: 10-12
Credit: 1 credit per semester
This Airframe and Powerplant Technician General course is the first segment of training as an aviation maintenance technician. The AV0300 course is composed of Aviation Technology III (1 period) with AV2100 lab (1 period). Students will learn the basic terms, concepts and procedures that serve as the foundation for the more complex lessons to come. Students will obtain an understanding and hands on experience in mathematics, basic physics, mechanic privileges and limitations, maintenance publication, maintenance forms and records, basic electricity and ground operations and servicing. AV0300 and AV2100 are required General Maintenance Technician courses to be successfully completed before starting the Airframe and Powerplant courses for certification. Max enrollment: 20 students.

AVIATION MAINTENANCE TECHNICIAN TECHNOLOGY II WITH LAB
Course Number: AV0400, AV2110
Prerequisites: Physics
Grade Level: 10-12
Credit: 1 credit per semester
This Airframe and Powerplant Technician General Course is the other segment of training as an aviation maintenance technician. The AV0400 course is composed of Aviation Technology IV (1 period) with AV2110 lab (1 period). Students will learn the basic terms, concepts, and procedures that serve as the foundation and hands-on experience in aircraft drawings, weight and balance, fluid lines and fittings, materials and processes, and cleaning and corrosion. AV0400 and AV2110 are required General Maintenance Technician courses to be successfully completed before starting the Airframe and Powerplant course for certification. Max enrollment: 20 students.

AVIATION PILOT TRAINING I
Course Number: AV3000
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
Students will obtain knowledge necessary to complete the FAA Private Pilot Airplane Written Examination. There are flight simulation lessons that support the ground lessons. This course covers Aerodynamic Principles, Powerplant and Related Systems, Flight Instruments Aircraft Performance, Weather Theory, Weather Reports and Forecasts, Federal Aviation Regulations, National Transportation Safety Board, VFR Charts, Airspace, Airport Markings and Operations, Radio Communication, Pilot age and Dead-reckoning Navigation, Radio Navigation, Flight Planning, and flight Physiology, as well as hands-on activities. Max enrollment: 20 students.
AVIATION PILOT TRAINING II
Course Number: AV4000
Prerequisites: Aerospace Technology I & Aviation Pilot Training I
Grade Level: 11, 12
Credit: ½ credit per semester
Students continue their pursuit in learning more about the pilot career and build on prior information learned in the Aviation Pilot Training I course. Students participate in flight training, ground school, and simulator instruction to support the flight syllabus while studying meteorology, aerodynamics, navigation, physiology, airfield and flight environments, aircraft maneuvers, and aircraft weight and balance. Max enrollment: 20 students.

AIR TRAFFIC CONTROL
Course Number: AV3100
Prerequisites: Previous aviation course
Grade Level: 10-12
Credit: ½ credit per semester
This course will help students understand the skills necessary and the importance of ensuring a smooth flow of air traffic arriving and departing from an airport. Students will experience the role of Air Traffic Controllers in the operation and management of airports, as well as training and career opportunities in this field. Instruction will take place on Function and History of Air Traffic Control, Duties and Responsibilities, Military Air Traffic Control, Meteorology, Emergency situations and other related topics. Knowledge will be obtained related to passing the FAA Air Traffic Control exam. Max enrollment: 20 students.

AIRPORT OPERATIONS/MANAGEMENT
Course Number: AV3209
Prerequisites: Previous aviation course
Grade Level: 10-12
Credit: ½ credit per semester (offered first semester)
This course is designed to provide students with an understanding of the role of the airport manager in the management, administration, financing, and operating of small, medium, and large airports. Instruction will touch on many of the careers involved in this field such as security, marketing and other business skills.

AIRLINE OPERATIONS/MANAGEMENT
Course Number: AV3309
Prerequisites: Previous aviation course
Grade Level: 10-12
Credit: ½ Credit per semester (offered second semester)
This course is designed to provide students with an understanding of the role of the airline’s manager in management, administration, financing, and operating of an airline. Students will touch on flight scheduling, routes and hubs, crew scheduling, safety, customer service, fleet management and ground support operations, aircraft maintenance and engineering, accident investigations as well as other topics.

ENGINEER YOUR WORLD
Course Number: TE3110
Prerequisites: Algebra II or higher; Physics
Grade Level: 11, 12
Credit: ½ credit per semester
Engineer Your World is a course that is intended to stimulate students’ ingenuity, intellectual talents and practical skills in devising solutions to engineering design programs. Students use the engineered design process cycle to investigate design, plan, create and evaluate solutions. At the same time this course fosters awareness of the social and ethical implications of technological development. Projects include: reverse engineering, pinhole camera design, energy and robotics.
Business

KEYBOARDING
Course Number: RN6COM
Grade Level: 6
This course is designed for middle school students to develop touch skills for entering alphabetic, numeric and symbol information on a keyboard. Students compose and produce simple, personal, education and professional documents.

COMPUTER APPLICATIONS
Course Number: BU700091
Grade Level: 7, 8
This exploratory course introduces students to the basic skills of computer technology required by the Standards of Learning. Word processing, spreadsheets, databases and presentation software will be included in the course content.

High School Business Courses
The following courses prepare students for the Microsoft Office Specialist (MOS) and Internet and Computer Core Certification (IC3):

- Computer Information Systems
- Advanced Computer Information Systems
- Design, Multimedia and Web Technologies
- Information Technology Fundamentals

COMPUTER APPLICATIONS
Course Number: BU0209
Grade Level: 9, 10
Students demonstrate an understanding of computer concepts through application of knowledge. Students learn to use software packages and local and worldwide network communications systems. Students develop or review correct keyboarding techniques and gain a basic knowledge of word processing, spreadsheet, database, graphics and telecommunications applications.

DIGITAL INPUT TECHNOLOGIES
Course Number: BU0109
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit
This course introduces the use of new and emerging data input tools that are becoming the standard in today’s work and educational settings. Students will develop proficiency in the use of speech recognition software, digital cameras, digital video cameras and input tools for entering and manipulating text and data. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability. This is a one semester course.

BUSINESS LAW
Course Number: BU0309
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit; 1 credit with Cooperative Education
Students examine the foundations of the American legal system. Students explore economic and social concepts as they relate to legal principles and to business and personal laws. This is a one semester course.
INFORMATION TECHNOLOGY FUNDAMENTALS
Course Number: BU1000
Prerequisites: None
Grade Level: 9, 10
Credit: ½ credit per semester
Information Technology (IT) Fundamentals introduces the essential skills needed for students to pursue specialized programs leading to technical and professional careers and certifications in the IT industry. The course provides an introductory framework as students prepare for higher-level certification programs and courses such as A+, CISCO, etc. Students have an opportunity to investigate career opportunities in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

PRINCIPLES OF BUSINESS & MARKETING
Course Number: BU1109
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
Students explore the roles of business and marketing in the free enterprise system and the global economy. Students study how basic financial concepts of banking, insurance, credit, taxation, and investments provide a strong background as they prepare to make decisions as consumers, wage earners and citizens. This is a one semester course.

BUSINESS MANAGEMENT – VIRTUAL ENTERPRISE
Course Number: BU1520
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, finance, human relations and the global market place. Quality concepts, project management, problem-solving and ethical decision-making are an integral part of the course. Students will participate in Virtual Enterprise VA – a method of instruction in simulated business operation. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

COMPUTER INFORMATION SYSTEMS
Course Number: BU1600
Prerequisites: Digital Input Technologies
Grade Level: 10-12
Credit: ½ credit, 1 credit per semester with Cooperative Education
Students apply problem-solving skills to real-life situations through word processing, spreadsheet, and database software; multimedia presentations; and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications and emerging technologies. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

ADVANCED COMPUTER INFORMATION SYSTEMS
Course Number: BU1620
Prerequisites: Computer Information Systems
Grade Level: 11, 12
Credit: ½ credit per semester, 1 per semester with Cooperative Education
Students apply problem-solving skills to real–life situations through advanced integrated software applications. Students work individually and in groups to explore advanced computer maintenance, website development, programming, networking, emerging technology and employability skills. Completion of this course may prepare the student for industry certification. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.
ACCOUNTING
Course Number: BU1710
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
Students study the basic principles, concepts, and practices of the accounting cycle. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash systems. Students learn fundamental accounting procedures using a manual and an electronic system.

ADVANCED ACCOUNTING
Course Number: BU1720
Prerequisites: Accounting
Grade Level: 11, 12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
Students gain in-depth knowledge of accounting procedures and techniques used to solve business problems and make financial decisions. Students use accounting and spreadsheet software to analyze and interpret business applications.

ECONOMICS & PERSONAL FINANCE
Course Number: BU1750
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. In addition to developing personal finance skills, students in the 36-week course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200.03B.

DESIGN, MULTIMEDIA & WEB TECHNOLOGIES
Course Number: BU1800
Prerequisites: Digital Input Technologies
Grade Level: 10-12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
Students develop proficiency in creating desktop publications, multi-media presentations/projects, and websites incorporating principles of layout and design using industry standard application software. Students design portfolios that may include business cards, newsletters, mini-pages, web pages, multimedia presentations/projects, calendars and graphics. Completion of this course may prepare students for industry certifications. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.
Health & Medical Sciences Courses
The following courses are only offered at the Governor’s Health Sciences Academy at Warwick High School.

INTRODUCTION TO HEALTH & MEDICAL SCIENCES
Course Number: HS1100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
This course introduces the student to a variety of health care careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. health care system and to learn basic health care terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability and efficiency within the health care environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts and communication skills essential for providing quality patient care.

MEDICAL TERMINOLOGY
Course Number: HS2100
Prerequisites: Introduction to Health & Medical Sciences is recommended
Grade Level: 11, 12
Credit: ½ credit per semester
Medical Terminology is designed to help students learn health care language. Topics are presented in logical order, beginning with each body system’s anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions and finally pharmacology. Students learn concepts, terms and abbreviations for each topic.

Marketing
The following courses prepare students for possible National Retail Federation Certification:
- Marketing
- Advanced Marketing
- Marketing Management

MARKETING
Course Number: MK0100
Prerequisites: Principles of Business and Marketing highly desirable, but not required
Grade Level: 11, 12
Credit: 1 credit per semester
Students examine activities in marketing and business important for success in marketing employment and postsecondary education. Students will learn how products are developed, branded and sold to businesses and consumers. Students will analyze industry trends and gain hands-on experience in the marketing of goods, services and ideas. Topics will include professionalism in the workplace, product planning and positioning, promotion, pricing, selling, economic issues and the impact of technology on the marketplace. This course reinforces mathematics, science, English and history/social science Standards of Learning (SOL). Marketing is the beginning cooperative program, which combines classroom instruction with supervised on-the-job training. Students enrolled in this course are required to work part-time.
ADVANCED MARKETING
Course Number: MK0200
Prerequisites: Marketing, Marketing Management, SER Marketing or Fashion Merchandising
Grade Level: 12
Credit: 1 credit per semester
Students gain knowledge of marketing functions as they relate to supervisory and management responsibilities and develop skills needed for advancement. Students will prepare for advancement in marketing careers and postsecondary education. Advanced Marketing is the advanced cooperative program, which allows students to pursue the development of marketing competencies necessary for advancement in full-time employment or postsecondary education in marketing. Students enrolled in this course are required to work part-time. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

MARKETING MANAGEMENT – VIRTUAL ENTERPRISE
Course Number: MK1100
Prerequisites: A career interest in marketing management
Grade Level: 11, 12
Credit: ½ credit per semester
Students who plan to pursue a college degree with a concentration in marketing, business, or management and/or who have tentative plans to manage or own a business will benefit from this course. Students develop critical thinking and decision-making skills through the application of marketing principles as they relate to businesses, nonprofit organizations, and the professions, service industries, and other institutions that market products, services, ideas, or people. Students may participate in Virtual Enterprise VA—a method of instruction in simulated business operation. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

FASHION MARKETING
Course Number: MK1200
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
This specialized marketing course is offered for students who have identified an occupational interest in the wholesale or retail marketing of men’s, women’s, and/or children’s clothing and related items. Students will gain basic knowledge of the apparel and accessories industry and the skills necessary for successful employment in the apparel business. Emphasis is given to fashion purchasing and selling, fashion cycles, fashion coordination and sales promotion.

SPORTS, ENTERTAINMENT & RECREATION MARKETING
Course Number: MK1300
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
Sports, Entertainment and Recreation Marketing is a specialized course for students with a career interest in the fields of sports, entertainment or recreation. The course is designed to equip students with entry-level competencies in the areas of sponsorship, promotion, advertising, legal contracts, event marketing and communications. In addition, the course work provides students with a fundamental knowledge of global marketing and allows them to apply critical thinking and decision-making skills to current industry case studies. Guest speakers, field trips, short-term shadowing experiences and DECA participation provide relevance to the curriculum.

HOTEL/MOTEL MARKETING I & II
Course Number: MK1411, MK1421
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester, 1 credit per semester with Cooperative Education
In this specialized course, students with a career interest in the field of hospitality and hotel marketing develop skills in the areas of hotel front-office procedures, human relations, food and beverage service, purchasing, tourism, travel and sales promotion. Students will also obtain a thorough understanding of the hotel-motel industry and the career options available.
Television Production

VIDEO & MUSIC TECHNOLOGY
Course Number: CM2100
Prerequisites: None
Grade Level: 9
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
This course offers students an opportunity to study all aspects of video and media productions, from planning and writing for production to operating studio and editing equipment. Students practice various methods of gathering news and information from individuals, research and online resources. In addition, students are introduced to analog and digital principles of film production.

TV & MEDIA PRODUCTION I
Course Number: CM2200
Prerequisites: CM2100
Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will learn how to think and work like media producers by engaging hands-on production projects. Students will also gain proficiency with the media production process while using industry-standard tools. They will explore jobs and careers in the dynamic and growing industry of television and media production and understand the impact of media and its function as entertainment, persuasion, information and instruction.

TV & MEDIA PRODUCTION II
Course Number: CM1100
Prerequisites: TV & Media Production I Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will become media producers as they take real-world projects from conception to production. They will continue to develop and master skills that are essential to the industry as they function in various professional roles. In addition, the students will gain both breadth and depth in their abilities with the sophisticated tools and equipment involved in professional media production. They will develop an increased understanding of postsecondary and career pathways and will develop plans and portfolios to help them achieve their goals.

TV & MEDIA PRODUCTION III
Course Number: CM1200
Prerequisites: TV & Media Production II
Grade Level: 11-12
Credit: ½ credit per semester
OFFERED ONLY AT WOODSIDE HS
Students will demonstrate mastery of media production knowledge and skills. They will function as media producers by creating original productions as they develop and market programs for target audiences. Students will assemble a professional digital portfolio to advance postsecondary and career goals. Students will investigate the dynamic media production industry and identify opportunities for real world experiences (e.g., internship, job shadowing). Students will research postsecondary opportunities and formulate strategies for both college and career success.

TELEVISION PRODUCTION I & II
Course Number: CM0100, CM0200
Prerequisites: None
Grade Level: 11, 12
Credit: 1 credit per semester
OFFERED AT THE TELECOMMUNICATIONS CENTER
Television Production is a program that prepares students to enter either a four-year college program in mass media, advertising, journalism, public information or broadcasting, or a technical career in electronic communications. Students in the course will produce local events (sports, drama, musical and news) for cablevision. Students from all high schools may enroll in these courses.
Technology Education

INTRODUCTION TO TECHNOLOGY
Course Number: TE6009
Grade Level: 6
This course stresses resources and problem solving. Students discover that technological resources are universal and that problem solving enhances the creation of new ideas.

EXPLORATION IN TECHNOLOGY: INVENTIONS & INNOVATIONS
Course Number: TE7009
Grade Level: 7
Problem-solving skills are developed in this Technology Education course. Students build models of existing inventions and/or explore possibilities for future inventions and innovations.

TECHNOLOGY SYSTEMS
Course Number: TE8009
Grade Level: 8
This course emphasizes technological systems. By simulating systems, assessing their impacts, and relating these discoveries to the experiences of the two previous courses, students acquire a global view of technology.

TECHNICAL DRAWING
Course Number: TE0100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
Technical Drawing provides students the opportunity to gain a basic background of skills and understanding in mechanical drawing or drafting. An understanding of basic algebra, fractions and measurements is needed to successfully complete this course. The course includes instruction in computer-aided drafting (CAD).

ENGINEERING DRAWING
Course Number: TE0200
Prerequisites: Technical Drawing
Grade Level: 11, 12
Credit: ½ credit per semester
Engineering Drawing provides students the opportunity to experience the graphic language of industry for engineers, manufacturers and technicians. Emphasis is placed on computer-aided drafting (CAD), interpretation of industrial prints, ability to use handbooks with other resource materials and adherence to established standards of drafting. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.

ARCHITECTURAL DRAWING
Course Number: TE0300
Prerequisites: Technical Drawing
Grade Level: 11, 12
Credit: ½ credit per semester
Architectural Drawing is a course designed to present general principles, practices and techniques of residential and commercial building designs and rendering model making structural details and community planning. Students use computer-aided drawing and design (CAD) equipment and established standards or codes to prepare models for presentation.
ELECTRONICS SYSTEMS I & II
Course Number: TE1110, TE1120
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY
This course engages students in electricity and electronic experiments that focus on the application of scientific theories and mathematics principles. Students solve problems using simple electrical devices and circuits and build electronic projects using DC and AC devices and circuits. In the second year, students work with electronics devices, instruments, and circuits, building projects to apply theories and laws with electronic components such as resistors, capacitors, and transistors. They also study integrated circuits used in computers, amplifiers and other equipment.

COMMUNICATIONS TECHNOLOGY
Course Number: TE1210
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
This course provides experiences related to various modes of communicating information, using data, technical design, optics, graphic production, audio and video, and integrated systems. Students solve problems involving input, process, output and feedback processes. In addition, students learn about potential career choices related to communication and impact of communication on society.

GRAPHIC COMMUNICATIONS
Course Number: TE1310
Prerequisites: Communications Technology
Grade Level: 10-12
Credit: ½ credit per semester
Course experiences relate to a wide range of tools and materials used to reproduce information and images. Several mediums are used, including paper, metal, plastic and fabric. Students develop competencies in message design, composition, and assembly; film conversion and assembly; and message transfer and product conversion.

FOUNDATIONS OF TECHNOLOGY
Course Number: TE2109
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit
Foundations of Technology is designed as the beginning high school course in technology education. Students acquire a foundational knowledge in technological material, energy, and information and apply processes associated with the technological thinker. Laboratory activities engage students in creating new ideas and innovations, building systems, and analyzing technological products to learn how and why technology works. Working in groups, students build and control systems with computers. They creatively apply mathematics, science, and engineering in the development of technology. This is a one semester course.

INTRODUCTION TO ENGINEERING DESIGN
Course Number: TE1400
Prerequisites: None
Grade Level: 9-10
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY
In this foundation course students use 3-D computer modeling software as they learn the engineering-design process and solve design problems for which they develop, analyze, and create product models. Students use the engineering design process, applying math, science, and engineering standards to hands-on projects. Students work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work. This course is for students enrolled in the Architectural/Engineering Design program at Heritage High School Governor’s STEM Academy.
ENGINEERING EXPLORATIONS
Course Number: TE3100
Prerequisites: None
Grade Level: 9-12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY
This course is an introduction to the fundamentals of technology and engineering. Students will be exposed to a variety of engineering specialty fields and related careers. Students will gain a basic understanding of engineering history and design, using mathematical and scientific concepts.

ENGINEERING STUDIES
Course Number: TE3120
Prerequisites: Engineering Explorations
Grade Level: 11, 12
Credit: ½ credit per semester
To learn the applications and design process of engineering, students form engineering teams and select a group design problem. Each team uses communications, graphics, mathematics and community resources to solve problems. Each team learns appropriate information in order to complete a project. Projects may be models, systems or products that creatively solve an engineering problem. Max enrollment: 20 students.

DIGITAL VISUALIZATION
Course Number: TE2200
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY
Students will gain experiences related to computer animation by solving problems involving 3D object manipulation, storyboarding, texture mapping, lighting concepts and environmental geometry. They will produce animations that include interdisciplinary projects related to science, engineering and the entertainment industry. A major emphasis will be the production of a portfolio that showcases examples of original student work.

MODELING & SIMULATION
Course Number: TE2300
Prerequisites: None
Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY
Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering and mathematics (STEM). The activities include evaluating physics simulations, programming games for educational purposes and creating visualization systems with 3D models. Students will develop an understanding of the systems, processes, tools and implications of the field of modeling and simulation technology.

COMPUTER SYSTEMS I & II
Course Number: AV0500, AV0510
Prerequisites: None for Computer Systems I; Computer Systems I must be completed before taking Computer Systems II; Computer Systems I & II must be completed before taking Computer Maintenance
Grade Level: 10-12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY & AVIATION ACADEMY
Students learn to construct, troubleshoot, service, and repair computer systems, related components, and software, and to install and maintain local area networks. Dual enrollment college credit may be offered for this course at some school sites. Check with your counselor for availability.
COMPUTER MAINTENANCE  
Course Number: AV0530  
Grade Level: 11, 12  
Credit: ½ credit per semester  
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR’S STEM ACADEMY  
Provides students with the fundamental skills associated with the maintenance of computers and expands upon networking concepts. Upon successful completion of the course, students may qualify to take the Microsoft Technology Associate (MTA) and A+ certification exam.

Family and Consumer Sciences

LIVING SKILLS  
Course Number: RN6LIV1  
Grade Level: 6  
Students will explore stitchery and crafts, simple food preparation skills and learn to accept themselves as contributing members within their families. The course will help students acquire traits which contribute to a positive self-concept.

LIVING SKILLS – EXPLORE II  
Course Number: WF7009  
Grade Level: 7  
Students explore good family communication, caring for children, advertising in consumer resources, basic sewing skills and basic nutrition and food preparation skills. Students will develop hands-on skills in a modular family and consumer sciences curriculum that integrates technology-based activities.

LIVING SKILLS – EXPLORE III  
Course Number: WF8009  
Grade Level: 8  
Living Skills –Explore III in grade 8 prepares students to make good decisions and accept more responsibility in their family. Students learn to be better consumers, to construct a simple garment, and to make good nutritional and food preparation choices. Students will develop hands-on skills in a modular family and consumer sciences curriculum that integrates technology-based activities.

INDEPENDENT LIVING  
Course Number: WF0300  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit per semester  
Independent Living supports the well-being of individuals living in a global environment. Students will focus on managing resources to achieve individual goals, making informed consumer choices, creating and maintaining a positive family environment, and making decisions related to nutrition, clothing, housing and the management of a household.

INTRODUCTION TO HOSPITALITY, TOURISM & RECREATION OCCUPATIONS  
Course Number: WF0400  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit per semester  
This course is designed for students who are considering career options in the hospitality, tourism and recreation industries. Course competencies focus on hospitality operations on a system-wide basis, including travel arrangements and travel facilities. The course work provides an overview of recreation and attractions operations, hotel and lodging facilities and food service policies and regulations.
INTRODUCTION TO CULINARY ARTS  
Course Number: WF1110  
Prerequisites: None  
Grade Level: 10-12  
Credit: ½ credit per semester  
Students will focus on units of study to include food science and technology, dietetics and nutrition services, contemporary cuisines and service styles, food and beverage production and preparation, and food safety and sanitation. Basic principles of cooking and service for China, Africa, England, France, Germany, Greece, Italy, Japan and Mexico will be included. Instruction will be enhanced through the use of the Internet. Max enrollment: 20 students.

PARENTING  
Course Number: WF1209  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit  
Students focus on the role of parenting in society, preparing for a healthy emotional and physical beginning for parent and child, meeting developmental needs of children and adolescents and building positive parent-child relationships through guidance and discipline. Parenthood responsibilities and community resources for parents are emphasized. Opportunities to experience childcare and parenting skills are given by the extended use of computer simulations. Current philosophies of childcare and child rearing are explored using resources such as the Internet, current magazines and other printed material. This is a one semester course.

FAMILY RELATIONS  
Course Number: WF1219  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit  
Students focus on analyzing the significance of the family, nurturing human development in the family throughout the life span, analyzing factors that build and maintain healthy family relationships, developing communication patterns that enhance family relationships, dealing effectively with family stresses and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the life span. This is a one semester course.

NUTRITION & WELLNESS  
Course Number: WF1130  
Prerequisites: None  
Grade Level: 9-12  
Credit: ½ credit per semester  
Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health; analyzing relationships between psychological and social needs and food choices; choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; and identifying strategies to promote optimal nutrition and wellness of society. Students will determine career options in the field of food science, nutrition and wellness.

Courses at New Horizons Career & Technical Education Center  
The New Horizons Career and Technical Education Center is a regional training center, which has two campuses. Students must be 16 years of age to attend the New Horizons Center and must make an application for acceptance. The school division provides transportation to the two campuses.
AUTO BODY PREP
Course Number: NH0050
Prerequisites: Eye–hand coordination, manual dexterity and physical strength, mobility and stamina
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm (PM only)
This one-year program is designed for students who are interested in collision repair, but are unable to meet the requirements of the Auto Body or Refinishing Technician program. Students learn the very basics of the collision repair industry to include repairing a dent, welding, sanding, repairing plastic and fiberglass, using a primer and paint gun, mixing paint, and pin striping. Each student entering this program will be required to spend about $50 on an auto body kit that will contain a respirator as well as other related auto body tools. Note: This course is not recommended for individuals with respiratory or allergy problems.

AUTO BODY REPAIR I & II
Course Number: NH0010, NH0020
Prerequisites: Eye–hand coordination, manual dexterity and physical strength, mobility and stamina
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm & Woodside Lane Campus (PM) only
This course prepares students to repair motor vehicle bodies. Instruction includes chassis alignment and reconstruction of components. This is a two-year program. The second year course deals with advanced techniques and auto painting. Each student will spend about $50 for a body repair kit. Note: This course is not recommended for individuals with respiratory or allergy problems.

AUTO TECHNOLOGY I & II
Course Number: NH0060, NH0070
Prerequisites: English 10 and Algebra I with a grade of “C” or above; the ability to read and understand highly technical information, use sensitive sophisticated equipment and work independently and in groups on involved tasks requiring concentration and accuracy
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm Campus
This two-year program prepares students to become entry-level auto technicians. First year students will study automotive systems and their operation, perform routine maintenance, and replace selected auto parts. The student has the option of enrolling in the GM YES MENTORSHIP PROGRAM sponsored by participating dealers. The curriculum is composed of the following topics: shop safety, tools, service manuals and publications, automotive engine theory, service and operation, basic electrical theory and operation, suspension and drive train component operation and repair, heating/air conditioning and emissions control systems. Second year students will study automotive electrical/electronic systems intensively and learn to diagnose and correct malfunctions related to drive-ability and engine performance. This program is dual enrolled with Thomas Nelson Community College.

BASIC CARPENTRY
Course Number: NH0101
Grade: Level: Must be 16 years of age
Credit: 1 ½ Credit each semester
Location: Woodside Lane Campus
This is a one-year program. Basic carpenters perform some of the elementary functions in the field of carpentry, and on many construction sites they are responsible for carrying materials and tools to carpenters and for cleaning up. Much of the work is done outside. The job can be physically strenuous and involves climbing and prolonged standing, kneeling and bending.

Additional Information:
- Three high school credits per year
- Summer job (Mentorship Program with pay) – students may earn 1 elective credit
- Help finding a job after graduation
CARPENTRY I & II
Course Number: NH0100, NH0110
Prerequisites: Ability to read a ruler in one sixteenth increments, basic math skills using fractions and decimals, eye-hand coordination, willingness to work outside in varying weather conditions and a minimum proficiency of reading at the 8th grade level
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm & Woodside Lane Campus
This course gives students an opportunity to obtain job level entry skills in residential and commercial construction. Over the two-year course, students are exposed to all aspects of residential construction. Upon graduation, students may pursue a career of carpentry, or carpenter’s helper. Spin-off careers such as siding, roofing, insulation, and dry wall installation; dry wall finishing; and entry-level cabinet making are other areas open to carpentry graduates. Students are required to demonstrate competency in areas such as use of hand and power tools, blueprint reading, building materials, foundation layout, rough framing, roof framing, exterior finishing, interior finishing, stair construction and simple cabinet construction.

COMPUTER NETWORKING ESSENTIALS
Course Number: NH0200
Prerequisites: A computer applications course and English 10, both with a grade of “C” or above
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm Campus
Students study advanced integrated computer applications, expert systems, networking and telecommunications. This course is for the above average student who wants to develop skills and knowledge in computer network administration. Each student is required to take national certifying exams for computer network administration. The student must pay for these exams.

COSMETOLOGY/BARBERING I & II
Course Number: NH0250, NH0260
Prerequisites: English 10 and Biology with a grade of “C” or above; eye-hand coordination, manual dexterity, good color discrimination and ability to follow oral and written instructions
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm & Woodside Lane Campus
This two-year course prepares students for state licensing as cosmetologists or barbers. Instruction includes shampooing, scalp and hair treatment, hair analysis, hair styling and salon management. Purchase of equipment and supplies is required. The first year cost is about $350.

CRIMINAL JUSTICE
Course Number: NH0540
Prerequisites: English 10 with a grade of “C” or above; minimum 2.0 GPA; and a genuine interest in pursuing a career in criminal justice.
Grade Level: 11, 12
Credit: 1½ credits per semester
Location: Butler Farm & Woodside Lane Campus
This course introduces students to careers in law enforcement, corrections and private security. It also establishes a good base for those students going on to college or into the military. Course is dual enrolled with Thomas Nelson Community College. The cost is about $50 to cover materials and certification. Note: Under current regulations, an individual must be 21 years old to be a police officer.
CULINARY ARTS I & II
Course Number: NH0300, NH0310
Prerequisites: Must have completed English 10 with a grade of “C” or above; adaptability and the desire to work with people, understanding of measurement concepts, and the ability to accurately perform arithmetic operations on whole decimal and fractional numbers
Grade Level: Must be 16 years old
Credit: 1½ credits per semester
Location: Woodside Lane Campus
Culinary Arts prepares students to enter employment in food service occupations. This is a two-year program that focuses on sanitation, nutrition, food preparation, purchasing and inventory control in addition to food presentation and service.

DENTAL ASSISTANT I & II
Course Number: NH0370, NH0380
Prerequisites: Biology and English 10, both with a minimum grade of “C” or above; good physical condition, desire to work with people, and ability to read and comprehend technical material (Course test is 12+ reading level).
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm Campus
Dental Careers is a two-year program that provides the training necessary to become an integral part of the dental profession. The course offers the student supervised training as a dental assistant and the training to meet the educational requirements for x-ray certification upon passing a certification examination. Additional training is provided for students to administer schedule VI topical medicinal agents, including topical fluoride and desensitizing agents. Dental assisting is a profession requiring emotional stability, manual dexterity, social adjustment, good grooming and excellent interpersonal communication skills. Students are required to purchase uniforms and pay for liability insurance (estimated total cost $80). Hepatitis-B vaccination must be current. Students must adhere to strict grooming and dress guidelines.

INTRODUCTION TO ELECTRONICS & ROBOTICS
ADVANCED ROBOTICS & FIBER OPTICS
Course Number: NH0400, NH0410
Prerequisites: For Introduction to Electronics & Robotics: Algebra I with a minimum grade of “C” or above.
For Advanced Robotics & Fiber Optics: Introduction to Electronics & Robotics at New Horizons or another Electronics course with a minimum grade of “C”.
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm Campus
Introduction to Electronics & Robotics prepares students in basic electricity, direct current, alternating current fundamentals, basic electronics, and troubleshooting techniques. It also emphasizes integrated circuits, digital fundamentals, and digital applications. Students will be given an introduction to the application of electronics in the field of robotics.

In order to meet the two-year completer sequence requirement, students must complete Introduction to Electronics & Robotics as well as the Advanced Robotics and Fiber Optics course in their senior year. This advanced course provides instruction in computer programming, motor control and feedback systems used in robotic assembly and manufacturing settings. In addition, students program a microcontroller for robotic manipulation and focus on the application of fiber optics.

During both courses, students will also be given an opportunity to participate on the New Horizons Robotics Team, which competes in a national competition. Each robotics course satisfies requirements for the Governor’s Academy for Innovation, Technology, and Engineering (GAITE).
EARLY CHILDHOOD EDUCATION I & II
Course Number: NH0730, NH0740
Prerequisites: English 10 with a grade of “C” or above; proficient in reading, writing and speaking the English language
Grade level: 10-12
Credit: 1½ credits per semester
Location: Butler Farm Campus
In this two-year program, students will study topics such as planning a safe, healthy learning environment; principles of child growth and development; positive ways to support intellectual, social, and emotional development; and strategies of effective classroom operation. Students will plan and prepare appropriate learning activities and implement those activities in the preschool laboratory on-site. Program is dual enrolled with Thomas Nelson Community College.

ELECTRICITY & RENEWABLE ENERGY
Course Number: NH 0420
Prerequisites: Completion of Algebra I and English 10 with a grade of “C” or above.
Grade Level: Must be 16 years of age
Credit: ½ credit each semester
Location: Butler Farm Campus
Electricity and Renewable Energy is a one-year program that teaches the basic concept used by Electricians to install, maintain and repair wiring, equipment and fixtures. Students in this program will also explore alternative renewable energy sources and will learn to install hydrogen fuel cells, solar panels and communication cable and wiring. As our electricity and alternative renewable energy resource needs continue to grow, so will the career opportunities in this field. Because we depend so much on electricity and other energy sources for the way we live and work, careers in this field will always be in high demand. To become a journeyman electrician requires completion of a four or five-year Apprenticeship program following high school. Students completing the Electricity and Renewable Energy course will be awarded a credit of one year toward completion of the apprentice related instruction at NHREC.

EMERGENCY MEDICAL TECHNICIAN I & II
Course Number: NH0430, NH0440
Prerequisites: Ability to communicate verbally via telephone and radio equipment; lift, carry and balance a minimum of 125 pounds (250 with assistance); interpret written, oral and diagnostic instructions; use good judgment and remain calm; read manuals, encyclopedias, and road maps; accurately discern street signs and address numbers; interview patient, family members, and bystanders; document relevant information in writing; converse with co-workers and hospital staff as to status of patient; bend, stoop, and crawl on uneven terrain; and withstand varied environmental conditions
Grade Level: Must be at least 16 years of age at the start of the program
Credit: 1½ credits per semester
Location: Butler Farm Campus
This course prepares students to perform as emergency medical technicians. Students are prepared to determine the nature and extent of illness or injury, take vital signs and establish priority for emergency care. Students will participate in extracting patients from entrapment, use prescribed techniques and equipment, and report observations both verbally and in writing about care of patients at the scene and en-route to the hospital. Program completion will allow students to be eligible to take the State Certification Exam administered by the Virginia State Department of Health. Course is dual enrolled with Thomas Nelson Community College. The second year of this New Horizons sequence provides students the opportunity to qualify for a higher level of certification or the dual enrollment option with TNCC. Expenses: Insurance, supplies and exam – about $100. Note: Additional requirements for the state exam include not having been convicted of a felony involving any sexual crime and no convictions of any other act which is a felony under the laws of this state or of the United States, except that such felon is eligible for certification if within five (5) years after the date of final release, no additional felonies have been committed.
HEATING/VENTILATION/AIR CONDITIONING I & II
Course Number: NH0460, NH0470
Prerequisites: Mechanical aptitude, manual dexterity, knowledge of basic mathematics and ability to learn use of blueprints
Grade Level: Must be 16 years of age
Credit: 1½ credits per semester
Location: Butler Farm Campus
This course offers two years of training in commercial and residential refrigeration, and heating. It prepares students to earn certification through the EPA or a CFC Technician. Program is dual enrolled with Thomas Nelson Community College.

FIREFIGHTER
Course Number: NH0580, NH0590
Prerequisites: same as EMT and a physical exam
Grade Level: 11, 12
Credit: 1½ credits per semester
Location: Butler Farm Campus
Fire Fighter is a one-year program at New Horizons, offered only in the afternoon. Students will learn both the theoretical concepts and practical application of fire suppression, fire science management, fire prevention techniques, arson investigation and the mitigation of hazardous material accidents. Firefighting is a physically demanding profession and students will be introduced to this aspect through a physical training program. In addition, local fire departments will work with the students in this indoctrination program, which may require field trips after school hours. Fire Fighter students study basic life support, hazardous material awareness and operations, fire behavior, building construction & forcible entry, ladders, water supply, sprinkler systems & ventilation, incident management systems, vehicle extrication, special rescue, building search, fire cause and origin, pre-incident survey, FD communications, and radio systems & reporting. Students must pass a physical exam performed by their private physicians using a New Horizons form. Students must be prepared to attend some classes on Saturdays and during after school hours. Course is dual enrolled with Thomas Nelson Community College and may lead to an adult apprenticeship through the Hampton Fire Department.

MEDICAL ASSISTANT I
Course Number: NH0630
Prerequisites: None
Grade level: 11, 12
Credit: 1½ credits per semester
Location: Butler Farm – 1 year program only
This one-year program prepares students to assist physicians by performing functions related to both business administration and the clinical duties of a medical office. Instruction in the business aspect includes insurance reporting, office accounting, medical records, and medical transcription. Clinical instruction includes preparation of the patient for examination and treatment, routine laboratory procedures, and use of the electrocardiograph (EKG) machine. Medical Assistant students study the following: receiving patients, assisting physicians with patient examinations, administering lab tests, cardio-pulmonary resuscitation, medical economics, maintenance of patient records, care of medical equipment, special diagnostic testing such as EKG and assisting with office therapy.

NURSING ASSISTANT
Course Number: NH0640
Prerequisites: Desire to work with people, good physical condition, good hand eye coordination, manual dexterity and the ability to read and comprehend technical material at the a 10th grade reading level. Results of a current (good for one year) TB skin test must be on file with New Horizons CTEC no later than October 30, 2009.
Grade level: 11, 12
Credit: 1½ credits per semester
Location: Butler Farm Campus
This course prepares students for employment as a Nurse's Assistant/Home Healthcare Aid and prepares students for entry into the Practical Nursing Program as well as other health occupations. Students study medical terminology, personal care skills, nutrition, legal and ethical issues in health care, communication, and common health problems. Students must pass a general safety rules test with 100% accuracy prior to attending clinical training. Upon successful completion of the program, students meeting standards are eligible to take the National Nurse Aide Assessment Program examination to become a certified Nurse Aide in Virginia.
PHARMACY TECHNICIAN  
Course Number: NH8305/8306  
Prerequisites: Completion of Algebra I and English 10 with a grade of “C” or above.  
Grade level: 11, 12  
Credit: 1½ credits per semester  
Location: Woodside Lane Campus  
The Pharmacy Technician Program is a one-year (two-semester class) course which will provide students an in-depth exposure to the pharmaceutical industry. It will assist students in becoming skilled in preparing/dispensing prescriptions, compounding medications, preparing intravenous medications and stocking and repacking medications. Upon completing this one-year program, students will be administered the Virginia Pharmacy Technician Exam. Passing the exam qualifies students to apply for certification as a Pharmacy Technician with the Virginia Board of Pharmacy.

WELDING I & II  
Course Number: NH0700, NH0710  
Prerequisites: Good mechanical aptitude, good hand-eye coordination, and the ability to tolerate heat, smoke, and working in confined spaces  
Grade Level: Must be 16 years of age  
Credit: 1½ credits per semester  
Location: Butler Farm Campus  
Welding is a two-year, three period course in which the student learns to use shielded metal arc welding equipment to weld surface, fillet, and groove welds in the flat, horizontal, vertical, and overhead positions. The student uses the oxyacetylene equipment for cutting metal and the TIG and MIG welding processes. Students also develop good work habits. Students are required to provide the clothes they weld in. Boots with steel toes, long sleeve shirts, and long pants are the required attire. All welding equipment will be provided. Note: Welding is a construction trade and demands physical involvement. All students in welding are required to do physical labor related to welding. Therefore, they should be in good physical condition, without allergies or breathing problems.

VETERINARY SCIENCE  
Course Number: NH8088, NH8083  
Prerequisites: None  
Grade level: 11, 12  
Credit: 1½ credits per semester  
Location: Woodside Lane Campus  
This is a one-year program. Veterinary Science students will learn how to respect and safely handle and treat classroom animals. Students come to understand the various breeds and species of animals and are able to identify basic requirements for veterinary care and general health maintenance. Students receive training in handling, grooming, feeding and properly medicating a variety of animals. In addition, animal nutrition, disease and basic first aid are explored. Students also perform the routine technical, maintenance and office duties associated with veterinary work. Veterinary Science students study the following: origin of various animal species, animal nutrition, genetics, behavior and training, diseases, symptoms, treatment and preventative measures for each species, handling/grooming/feeding, basic first aid/calculating dosages/administering medications, routine technical/maintenance/office functions, and professional and ethical standards.

Additional Courses

COLLEGE & CAREER PREP  
Course Number: MC0400  
Prerequisites: None  
Grade Level: 9-12  
Credit: 1/2 credit per semester  
This course is designed to empower students to succeed in rigorous academic curriculum while preparing them to be college, career and citizen ready. Strategies will be shared in study skills, organizational skills, communication skills, oral interpretation skills, writing, test-taking strategies, personal development and team building. Students will maintain an electronic portfolio and will be provided skills to maintain and continue it through high school. Students will design and create power point presentations and use audio-visual equipment and visual aids to enhance the delivery of presentations. Students will prepare for verbal and math portions of the PSAT, SAT and ACT by learning how to improve study skills, develop note-taking strategies, practice time management skills and utilizing current software and practice exercises. Students will have an opportunity to visit local colleges, businesses and participate in cultural field trips and explore career and college expectations through invited community guest speakers. Students will receive an elective credit and may sign up for this course through their school counselor.
FRESHMAN SEMINAR
Course Number: MC0079
Prerequisites: Recommendation
Grade Level: 9
Credit: ½ credit per semester
The Freshman Seminar will use the CollegeEd curriculum, which is designed to engage students in the college and career planning process. The course will focus on conveying important messages and practical information about colleges, careers, academic planning and relationship building. Students will visit colleges/universities and participate in cultural events.

SERVICE LEARNING INTERNSHIP
Course Number: MC0409
Prerequisites: Contract
Grade Level: 12
Credit: ½ credit per semester
Service Learning Internship is designed for students to connect their interests, skills, and abilities with school-based, business-based, and community-based projects in an effort to improve communities, refine student employment skills, and provide students with real-life experiences for future careers. The service learning yearlong course will provide students with an opportunity to give time, energy, and service to local schools, community organizations, businesses, and governing agencies while building a portfolio of job-like experiences. This course requires a contract that provides guidelines and requirements for the service learning project. A total of 140 hours of service will be documented for this credit. Each service learner will work with a school-based mentor or community mentor to coordinate the effort.

HONORS INTERNSHIP
Course Number: MC1500
Prerequisites: Application
Grade Level: 12
Credit: ½ credit per semester (+0.5 weighted credit)
The Honors Internship Program will provide students with an opportunity to practice and refine their career skills in a real work environment. Students work at least 250 hours in a supervised, school-approved job that is related to their career interests. Students also meet once a week in a regularly scheduled class.

STEMINAR
Course Number: MC0029
Prerequisites: None
Grade Level: 12
Credit: ½ credit per semester
OFFERED ONLY AT HERITAGE HIGH SCHOOL GOVERNOR'S STEM ACADEMY
This course is designed to advance student’s preparation in critical reading, technical writing, college and workplace readiness and career-ready communication. Students enhance their skills in STEM by participating in STEM work-based learning experiences to include participation in job shadowing and internships; creation of electronic portfolios; and digital media portfolios.

TEACHING FOR TOMORROW
Course Number: MC1000
Prerequisites: Minimum 2.7 GPA or Teacher Recommendation
Grade Level: 11, 12
Credit: ½ credit per semester
This course will nurture and initiate training for students who may be interested in pursuing a teaching career. Students will receive insight into the nature of teaching, the problems of schooling and the critical issues in education. Students will study growth and development, the history of education, current trends in education, learning styles and teaching strategies. Students will have the opportunity to observe teachers at the elementary, middle or high school level.
Course Eligibility through Special Education
The following courses offer elective credit and are weighted equal to modified ability grouped classes in determining student class rank and grade point average. See Grade Point Average and Class Ranking of Secondary Students for further information.

STRATEGIES FOR SUCCESS
Course Number: SP1000
Prerequisites: Geared to LD students
Grade Level: 9 (10th & 11th on teacher recommendation)
Credit: ½ credit per semester
Strategies for Success is designed to teach students techniques that assist them in organizing and processing information. Students learn alternative strategies for recalling details and main ideas, outlining, taking tests, expressive writing, spelling, vocabulary development and time management. These techniques are applied to all content area material so that success is measured by improved performance in all academic areas. This course is appropriate for resource students.

PERSONAL LIFE SKILLS
Course Number: SP3000
Prerequisites: Geared to ED and LD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
Instruction in Personal Life Skills assists the ED/LD student in developing appropriate behaviors for all educational settings. Specific skills essential for social adjustment and social interaction are stressed. Assistance in problem solving, age appropriate social adjustment and selecting realistic life goals is emphasized.

SCHOOL SKILLS
Course Number: SP0800
Prerequisites: Geared to EMD, LD or ED students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
The course is designed to address the social behaviors that identified students require to become productive and successful in the school and community. It is especially geared for the ninth grade student entering high school in a self-contained program. However, others may also enroll as the IEP reflects a need for skills taught.

ENGLISH SKILLS
Course Number: SP1100
Prerequisites: None; geared to LD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
This course is designed for LD students who are also enrolled in a general education English class. The class reinforces language arts skills and supports deficit areas experienced in general education.

ENGLISH SKILLS
Course Number: SP2100
Prerequisites: None; geared to EMD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
This course is designed for EMD students who are also enrolled in a general education English class. The class reinforces language arts skills and supports deficit areas experienced in general education.
READING SKILLS
Course Number: SP0100
Prerequisites: Geared to EMD, ED and LD students; placement testing by special education teacher
Grade Level: 9-12
Credit: ½ credit per semester (elective)
Reading skills is a phonetic reading program for students who are non-readers through fourth grade ability. The program emphasizes decoding and comprehension skills.

EXCEL ENGLISH SKILLS
Course Number: SP2110
Prerequisites: None; geared to EMD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
ExCEL English Skills is designed as a repeating one-block class for special education students who are not enrolled in mainstream English classes and read and/or write at or below the fourth grade level. Students will master the communication skills needed for job seeking and keeping. Reading, writing, speaking and listening skills are taught in the context of real life situations. This class is designed to teach students very functional life skills that will allow them to live independently in the community. Some of the topics covered include writing a business letter, using a phonebook, reading the newspaper, using a transportation schedule, ordering in a restaurant, speaking to bosses and customers, messages and the use of technology as it relates to everyday living and employment.

LITERACY SKILLS
Course Number: SP0200
Prerequisites: Geared to LD, ED, and EMD
Grade Level: 9-12
Credit: ½ credit per semester (elective)
Literacy Skills is designed for those special education students whose deficit skills preclude them from enrollment in general education English. Basic reading and writing skills are emphasized.

EXCEL MATH SKILLS
Course Number: SP1210
Prerequisites: None; geared to LD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
ExCEL Consumer Skills is designed as a repeating one-block class for special education students who are not enrolled in mainstream Math classes, read and/or write at or below the fourth grade level and have math skills at or below a fourth grade level. All students need consumer skills to live independently in the community. This class is designed to teach basic math skills and mathematical reasoning with real life applications. Paying taxes, managing a household, buying/preparing food, and purchasing/maintaining a car are some of the topics covered in this course. Additionally, math used in leisure and recreation activities is also taught in this consumer class.

EXCEL MATH SKILLS
Course Number: SP2210
Prerequisites: None; geared to EMD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
ExCEL Math Skills is designed as a repeating one-block class for special education students who are not enrolled in mainstream Math classes, read and/or write at or below the fourth grade level and have math skills at or below a fourth grade level. All students need consumer skills to live independently in the community. This class is designed to teach basic math skills and mathematical reasoning with real life applications. Paying taxes, managing a household, buying/preparing food and purchasing/maintaining a car are some of the topics covered in this course. Additionally, math used in leisure and recreation activities is also taught in this consumer class.
MATH SUPPORT
Course Number: SP1200
Prerequisites: None; geared to LD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
This course is designed for students who are also enrolled in a general education math class. The curriculum reinforces math skills and supports deficit areas experienced in general education.

MATH SUPPORT
Course Number: SP2200
Prerequisites: None; geared to EMD students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
This course is designed for students who are also enrolled in a general education math class. The curriculum reinforces math skills and supports deficit areas experienced in general education.

PERSONAL FINANCE
Course Number: MA0100
Prerequisite: Completion of Algebra I or two math credits; IEP committee recommendation
Grade Level: 11, 12
Credit: ½ credit per semester (math credit for special education students only); ½ credit per semester (elective credit for non-special education students)
This course provides an option for students who have elected the modified standard diploma program to receive a third mathematics credit. It is designed to teach students the skills to manage personal finances and to make sound financial decisions. Standard and Advanced Studies diploma students may take this course for elective credits.

SCIENCE SKILLS
Course Number: SP1310
Prerequisites: Geared to the EMD, LD and ED students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
Science Skills is a course composed of the following three strands: Life Science, Earth Science and Physical Science. Course objectives are designed to ensure that students are exposed to critical information that will make them better informed and more productive citizens. Students enrolled in this course may be certificate candidates or may eventually enroll in general education science courses.

SOCIAL STUDIES SKILLS
Course Number: SP1410
Prerequisites: None; geared to mildly disabled students
Grade Level: 9, 10
Credit: ½ credit per semester (elective)
Social Studies Skills is a course composed of the following three strands: Geography, U.S. History and Government. The course is designed to ensure that students are exposed to critical information that will make them better informed and more productive citizens. Students enrolled in this course may be certificate candidates or may eventually enroll in general education social studies courses.
EXCEL GOVERNMENT SKILLS
Course Number: SP3410
Prerequisite: Social Studies Skills or teacher recommendation; geared to mildly disabled students
Grade Level: 11, 12
Credit: ½ credit per semester (elective)
ExCEL Government Skills is designed as a two year one block course for special education students who read and write at or below fourth grade level and are not enrolled in a mainstream Government class. Students will leave this two-year course with a basic understanding of the structure and purpose of government. They will learn “…to become active and constructive participants in the democratic process and contributing members of their families, communities…” through instruction on topics such as the voting process, consumer rights and basic legal rights. The emphasis will be on real world experiences and application rather than theory. For example, rather than learn the purpose of personal documents, students will collect their own personal documents and understand how each is used to assist students with employment, taxes, driving, etc.

EDUCATION FOR EMPLOYMENT
Course Number: SP4000
Prerequisites: Geared to the EMD, LD or ED students
Grade Level: 11, 12
Credit: ½ credit per semester
Education for Employment provides the EMD, LD, and ED student with one hour of work related classroom instruction each day and the student will be placed by the teacher/coordinator in a job. Instruction in the classroom and coordination by the teacher is designed to enhance the student's work adjustment, employability skills and general development as a full productive worker.

EXCEL HEALTH & DAILY LIVING
Course Number: SP0300
Prerequisites: None; geared to mildly disabled students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
ExCEL Health and Daily Living is designed as a one-year, one-block course for special education students who are not enrolled in mainstream classes and read and write at or below fourth grade level. Students will learn information needed to lead a healthy life. Topics covered in the course are the systems of the human body, common safety precautions, first aid techniques, as well as prevention techniques. The course also covers appearance, peer pressure, nutrition and fitness. Drug and Family Life Education are included in this course. Additionally, students will learn about health resources in the community and how to access those resources.

EXCEL CAREERS
Course Number: SP0400
Prerequisites: None; geared to mildly disabled students
Grade Level: 9-12
Credit: ½ credit per semester (elective)
This course is designed as a one-year, one-block course for special education students who read and write at or below fourth grade level and are not enrolled in mainstream courses. Students will learn a career-planning process, assess their abilities, analyze those abilities and make realistic decisions regarding career options. Students will be exposed to a variety of career options. They will learn to set goals and follow through with goal attainment. Additionally, students will learn appropriate work behaviors and habits, understand the job application process and participate in the interview process.

JOB COACH
Course Number: SP4110
Prerequisites: Application through Transition Specialist
Grade Level: 9-12; must be 16 years old
Credit: ½ credit per semester
Location: New Horizons – Woodside
The Job Coach program provides high school students with disabilities the opportunity to develop employment skills. Job Coaches train students at non-paid sites within the community. They are coached to perform specific job tasks and they learn general employment skills. Employment skills include proper dress and grooming, importance of good attendance, time management, social skills and appropriate behavior. Data is taken by trainers on a daily basis to monitor progress. Sample job sites include the airport, recycling center, grocery stores, nursing homes, shopping centers and manufacturers.
WORK AWARENESS & TRANSITION PROGRAM
Course Number: SP4100
Prerequisites: Application through Transition Specialist
Grade Level: 9-12
Credit: ½ credit per semester
Location: New Horizons – Woodside
This specialized course is offered to selected special education students. Students work in the woodshop or the kitchen to learn basic employment skills such as understanding rules, safety at a work site, dressing and speaking appropriately, following directions from supervisors, teamwork, responsibility, cooperation, punctuality and handling emotions appropriately on the job. Students also learn basic math, reading and writing as it pertains to work. Additionally, students learn to take inventory in the work environment.

HORTICULTURE I & II
Course Number: SP4210, 4220
Prerequisites: Geared to mildly disabled students
Grade Level: 9-12
Credit: 1 credit per semester
Horticulture is designed as a multi-block, exploratory course covering the following topics: greenhouse production, landscaping and gardening, grounds maintenance and retail florist skills. Students will also receive instruction in using soil and other plant growing media and in identifying, propagating and growing horticulture plants. Instruction in safety practices and leadership development is also provided. Advanced students will be placed in the community for on the job training with teacher supervision.

EXCEL WORKPLACE SKILLS
Course Number: SP3310
Prerequisite: None; geared to mildly disabled students
Grade Level: 11, 12
Credit: ½ credit per semester (elective)
ExCEL Workplace Skills is designed as a one year one block class for special education students who read and write at or below fourth grade level and are not enrolled in mainstream courses. This course is designed to give special education students necessary job-keeping skills. There is no assumption that students will "pick up" these necessary skills through observation. Skills are taught by direct instruction and in the context of real life situations. This course provides special education students with the "opportunity to achieve full development of their potential through the acquisition of values, attitudes, knowledge, and skills that are essential to becoming productive adults." Workplace Skills is ideally paired with a Career and Technical class and/or Education for Employment.

OFFICE SPECIALIST I, II & III
Course Number: BU1200
Prerequisites: Documentation (through a transcript or ITP) that the student has keyboarding experience
Grade Level: 10-12
Credit: ½ per semester (elective)
This course is designed as a one-block class that will assist students in developing skills in areas such as keyboarding, word processing, office procedures and records management. Specifically, students will create, edit, and revise documents; key addresses on envelopes; enter data to a spreadsheet; file, store, and retrieve information; and use office equipment. Additionally students will learn appropriate workplace communications and prepare for employment by writing a personal resume and practicing interview techniques. Students may repeat Office Specialist for credit.

AUTO DETAILING INTERSESSION PROGRAM
Course Number: NH0819
Prerequisites: Application through Transition Specialist
Grade Levels: 10-12; must be 16 years old
Credit: ½ credit
Location: New Horizons – Woodside
This class offers high school students with disabilities the opportunity to develop basic auto detailing skills. The students' hands-on participation will include a variety of real-life situations. Skills will include identification of tools, importance of good attendance, time management, social skills, and appropriate work-place behavior. This is a one semester course.
SAWON ASSISTANCE INTERSESSION PROGRAM
Course Number: NH0809
Prerequisites: Application through Transition Specialist
Grade Levels: 10-12; must be 16 years old
Credit: ½ credit
Location: New Horizons – Woodside
This course offers high school students with disabilities the opportunity to develop basic salon assistance skills. The students’ hands-on participation will include a variety of real-life situations. Skills will include identification of salon tools, inventory control, importance of good attendance, time management, social skills, and appropriate work-place behavior. This is a one semester course.

English as a Second Language (ESL)
English as a Second Language (ESL) services are provided to all students who are designated, by state definition, as Limited English Proficient (LEP) per a state approved language assessment tool.

Intensive students, English Language Proficiency (ELP) levels 1-3.5, receive a minimum of two periods per day (or as needed) of ESL program instruction by an ESL teacher.

Resource students, ELP levels 3.6-5, receive a minimum of one period of ESL program instruction per day (or as needed) by an ESL teacher.

ESL students at proficiency levels 1 and 2 have the option to audit the following courses: World Geography, English 11 and Earth Science. Students registered under audit mode will not take the EOC assessment for that course and will not receive credit(s). These codes should be utilized to expose students to the academic language of the content and in preparation to retake the course under a credit bearing status.

ESL program services are provided at Denbigh High School and Warwick High School.

ESL I
Course Number: ES1110
Prerequisites: ESL Teacher / Welcome Center recommendation based on language assessment. Student must be enrolled in the ESL program.
Grade Level: 9-12
Credit: ½ English credit per semester or ½ elective credit per semester
Location: Denbigh HS and Warwick HS
Students will become familiar with U.S. culture and the rules, responsibilities and opportunities of students in a U.S. high school. They will learn listening, comprehension, reading, speaking and writing skills in English needed to function in a mainstream classroom. Students learn vocabulary; study grammar, word order, and parts of speech; practice oral communication; and develop listening comprehension by learning sounds, intonation, and rhythm. Course content is determined by the student's diagnosed needs.

ESL II
Course Number: ES1120
Prerequisites: ESL I or ESL Teacher/Welcome Center recommendation based on language assessment. Student must be enrolled in the ESL program.
Grade Level: 9-12
Credit: ½ English credit per semester or ½ elective credit per semester
Location: Denbigh HS and Warwick HS
Students learn English with a focus on literacy skills and content-specific language concepts that are aligned with the academic courses they are studying. Students learn English for the purpose of functioning in content classes. Students also continue to learn about American customs and culture. Students will increase vocabulary; expand knowledge of grammar; improve listening, reading comprehension, and oral communication; develop writing skills; and read about and discuss American Customs, history and geography.
ESL III
Course Number: ES1130
Prerequisites: ESL II or ESL Teacher/Welcome Center recommendation based on language assessment. Student must be enrolled in the ESL program.

Grade Level: 9-12
Credit: ½ English credit per semester or ½ elective credit per semester
Location: Denbigh HS and Warwick
Students continue to gain proficiency in the English skills of listening, speaking, reading and writing with classwork being aligned to core academic requirements of English 9 or higher with adapted materials and appropriate accommodations. Students continue to learn about American culture nuances and become better prepared for other academic courses. Students will expand vocabulary in test-taking terminology, idioms, vocations, and daily situations; increase knowledge of grammar; improve listening comprehension and oral communication; and increase reading comprehension skills for standardized test preparation.

ESL IV
Course Number: ES1140
Prerequisites: ESL III or ESL Teacher/Welcome Center recommendation based on language assessment. Student must be enrolled in the ESL program.

Grade Level: 9-12
Credit: ½ English credit per semester or ½ elective credit per semester
Location: Denbigh HS and Warwick HS
This course is designed for expanding level 4 ESL students who are preparing to exit the ESL program. Students will focus on listening, speaking, reading and writing aligned with the current content areas curricula for diagnostic reinforcement. They will expand vocabulary for daily living, competencies and standardized tests; master reading comprehension skills to include research/library skills, cause and effect, sequencing, and concepts rather than literal translation; and strengthen written communication and review grammar usage.

ESL LANGUAGE AND CULTURES I
Course Number: ES0110
Prerequisites: Designed for ESL level 1-2 students
Grade Level: 9-12
Credit: ½ World Language credit per semester
Location: Denbigh HS and Warwick HS
This course is designed to help intensive to beginning intermediate students adjust to life in their community and school environment. Students experience U.S. culture and customs through the printed word and use of hands-on materials such as phone books, money, calendars and much more. An introduction to American history and principles of basic math will be integrated into the study of culture and customs. This course will help students develop a vocabulary to express all aspects of American culture and will help them develop an awareness of the environment of the U.S. Students will read cross-cultural information, develop career goals and develop creative expressions and logical thinking.

ESL LANGUAGE AND CULTURES II
Course Number: ES0120
Prerequisites: Designed for ESL level 2-3 students
Grade Level: 9-12
Credit: ½ World Language credit per semester
Location: Denbigh HS and Warwick HS
This course is designed to help high intensive to beginning intermediate students adjust to life in their community and school environment. Students will have the opportunity to experience U.S. culture and customs through the printed word and use of hands-on materials such as phone books, money, calendars and much more. An introduction to American history and principles of basic math will be integrated into the study of culture and customs.
The International Baccalaureate (IB) Program Course Offerings at Warwick High School

The courses that follow are taken by students in the International Baccalaureate (IB) Program. However, where indicated, individual elective courses can be taken by students zoned for Warwick. The program requires that students enroll in the full curriculum, selecting a subject from each group.

Studies in Language and Literature

**IB LANGUAGE A: LITERATURE**
Course Number: EN 3310, EN 4310
Prerequisites: Satisfactory completion of English 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

IB English is the study of the language of the country where the course is taught. It is a two-year course that seeks to facilitate the clear expression of ideas; to aid clear, precise presentation of argument; and to assist in the understanding of both oral and written discourse. Its aims are to promote an international perspective through the comparative study of works from the students’ own culture and other cultures and to develop understanding and appreciation of the relationships between different works including detailed and critical analysis of written text. All SOL requirements are met and students take the both the English EOC Reading and the Writing SOL Test to earn verified credits toward graduation.

Language Acquisition

**IB LANGUAGE B**
Course Number: Spanish – WL0700, French – WL1700, German – WL2700
Prerequisites: Satisfactory completion of levels 1-3 by the end of grade 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

IB Language B is the study of a world language. Available languages are French, German and Spanish. The aim of the course is to develop speaking, listening, reading and writing skills in the target language and to prepare students to use the language appropriately in a range of situations and contexts.

Individuals and Societies

**IB HISTORY OF THE AMERICAS**
Course Number: SS2310, SS3310
Prerequisites: Satisfactory completion of World History or World Geography and Government in grades 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

The course aims to promote the acquisition of knowledge and understanding of the past that will serve both as a basis for the development and practice of appropriate skills, and for a better understanding of the present. It seeks to develop an awareness of continuity, change, and different interpretations of the past. Emphasis is placed on studies of the Americas from Canada to South America and 20th century world topics. This course will satisfy the U.S. History credit requirement for the Standard or Advanced Studies diploma. All students take the U. S. History SOL test to earn a verified credit toward graduation.

**IB SOCIAL & CULTURAL ANTHROPOLOGY I & II**
Course Number: SS5510, SS5520
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

The Social and Cultural Anthropology course offers students the opportunity to explore and understand humankind in all its diversity through the comparative study of cultures and human societies. It places special emphasis on comparative perspectives that challenge cultural assumptions. Anthropology fosters the development of citizens who are globally aware and ethically sensitive. Students in Social and Cultural Anthropology I will come to appreciate how anthropology contributes to an understanding of contemporary issues. *This is an elective IB course.*
IB PSYCHOLOGY
Course Number: SS5310
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Psychology is the systematic study of human behavior and mental processes. Students can expect to develop an understanding of how psychological knowledge is generated, developed, and applied; resulting in a greater appreciation for the diversity of human behavior. This is an IB elective course.

IB BUSINESS & MANAGEMENT I & II
Course Number: BU1530, BU1540
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
The Business and Management course is designed to develop an understanding of business theory and an ability to apply business principles, practices and skills. It aims to encourage a holistic view of the world of business by promoting an awareness of social and ethical factors in the actions of organizations and individuals in those organizations. Developing international mindedness and an awareness of different cultural perspectives provides students the skills to think critically and appreciate the nature and significance of change in a local and global context. This is an IB elective course.

IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY I & II
Course Number: BU1030, BU1040
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Information Technology in a Global Society is the study and evaluation of the impact of information technology on individuals and society. It explores the advantages and disadvantages of the use of digitized information at the local and global level. It uses an integrated approach, encouraging students to make informed judgments and decisions about the role of information and communication technologies in contemporary society. This is an IB elective course.

IB PHILOSOPHY I & II
Course Number: MC0050, MC0060
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
The emphasis of the Philosophy course is on “doing” philosophy. It focuses on developing students’ ability to formulate arguments in a sound and purposeful way, and encourages students to develop intellectually independent and creative ways of thinking. A concern with clarity of understanding lies at the core of the philosophy course. This clarity is achieved through critical and systematic thinking, careful analysis of arguments, and the study of philosophical themes and a close reading of philosophical texts. Through this examination of themes and text the philosophy course allows students to explore fundamental questions that people have asked throughout human history. This is an IB elective course.

Experimental Science
The sciences are offered to provide students with opportunity for search and discovery; opportunity for development/understanding of the knowledge of science principles and concepts; and opportunity for the application of knowledge and skills to generate new knowledge and to encourage an awareness of the impact of science on society to prepare for life in a technological age.

IB BIOLOGY
Course Number: SC2410, SC2420, SC2400
Prerequisites: Satisfactory completion of Biology and Chemistry in grades 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
IB Biology studies the fundamental characteristics of living matter from the molecular level to the vertebrate organism including cells, chemistry of life, genetics, ecology, human health and physiology, nucleic acids and proteins and plant studies.
IB CHEMISTRY
Course Number: SC3400, SC3410, SC3420
Prerequisites: Satisfactory completion of Biology and Chemistry in grades 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
IB Chemistry investigates stoichiometry, atomic theory, bonding, energetics, kinetics, oxidation and reduction and organic chemistry.

IB PHYSICS
Course Number: SC4410, SC4420, SC4430
Prerequisites: Satisfactory completion of Biology and Chemistry in grades 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
IB Physics is an in-depth study of the laws of physics experimental skills, mechanics, optics, sound, electricity, magnetism, atomic and nuclear physics, thermodynamics and biomedical physics.

IB ENVIRONMENTAL SYSTEMS
Course Number: SC1400
Prerequisites: Satisfactory completion of Biology and Chemistry in grades 9 and 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
IB Environmental Systems provides students with a coherent perspective on the environment; one that is essentially scientific and that enables them to adopt an informed and responsible stance on the wide range of pressing environmental issues that they will inevitably come to face.

Mathematics

IB MATH STUDIES
Course Number: MA4110
Prerequisites: Satisfactory completion of math through Algebra II & Trigonometry in grades 9 through 11
Grade Level: 12
Credit: ½ credit per semester (+1.0 weighted credit)
Math Studies provides a realistic mathematics course for students with varied backgrounds and abilities. The skills needed to cope with the mathematical demands of a technological society are developed with emphasis placed on the application of mathematics to real-life situations.

IB MATHEMATICS SL
Course Number: MA4120, MA4420
Prerequisites: Satisfactory completion of math through Algebra II & Trigonometry in grades 9 through 10
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Mathematics SL is designed for the student entering eleventh grade having completed Algebra II & Trigonometry successfully and with the intent to study calculus before graduating high school.

IB MATHEMATICS HL
Course Number: MA4410, MA4430
Prerequisites: Satisfactory completion of math through BC Calculus in grades 9 through 11
Grade Level: 12
Credit: ½ credit per semester (+1.0 weighted credit)
Mathematics HL serves students who have completed Math Analysis in the tenth grade and who have a strong math background with a history of success in mathematics.
The Arts

IB VISUAL ARTS I & II
Course Number: AR4100, AR4200
Prerequisites: Teacher recommendation and portfolio demonstrating serious interest and proficiency in art production
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

The Visual Arts course enables students to engage in both practical exploration and artistic production, and in independent contextual, visual and critical investigation. The course is designed to enable students to study visual arts in higher education and also welcomes those students who seek life enrichment through visual arts. All students are encouraged to develop their creative and critical abilities and to enhance their knowledge, appreciation and enjoyment of visual arts. Students must complete research and writing assignments as well as hands-on work. This is an IB elective course.

IB MUSIC I & II
Course Number: MU4310, MU4320
Prerequisites: Students must have some music background
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

Through the music course students develop their knowledge and potential as musicians, both personally and collaboratively. Involving aspects of the composition, performance and critical analysis of music, the course exposes students to forms, styles and functions of music from a wide range of historical and socio-cultural contexts. Students create, participate in, and reflect upon music from their own background and those of others. They develop practical and communicative skills which provide them with the opportunity to engage in music for further study, as well as for lifetime enjoyment. This is an IB elective course.

IB THEATRE I & II
Course Number: EE0510, EE0520
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

The Theatre course is designed to encourage students to examine theatre in its diversity of forms from around the world. This may be achieved through a critical study of the theory, history and culture of theatre and will find expression through workshops, compositions, or scripted performance. Students will come to understand that the act of imagining, creating, presenting and critically reflecting on theatre in its past and present contexts embodies the individual and social need to investigate and find explanations for the world around us. The theatre course emphasizes the importance of working individually and as a member of an ensemble. Students are encouraged to develop the organizational and technical skills needed to express themselves creatively in theatre. This is an IB elective course.

IB FILM I & II
Course Number: EE0710, EE0720
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)

Through the study and analysis of film texts and exercises in film-making, the film course explores film history, theory, and socio-economic background. The course develops students’ critical abilities, enabling them to appreciate the multiplicity of cultural and historical perspectives in film. To achieve an international understanding within the world of film, students are taught to consider film texts, theories and ideas from the points of view of different individuals, nations and cultures. This is an IB elective course.
Additional Requirements

IB THEORY OF KNOWLEDGE
Course Number: MC0039, MC0049
Prerequisites: None
Grade Level: 11, 12
Credit: ½ credit per semester (+1.0 weighted credit)
Theory of Knowledge is a key element in the educational philosophy of the International Baccalaureate. The course is philosophical in the sense that it is meant to encourage students to acquire a critical awareness of what they and others know through analyzing concepts and arguments and the basis of value judgments. It aims to develop a personal mode of thought based on critical examination of evidence expressed in rational arguments. This is a required course for all IB Diploma students.

The Governor’s School for Science and Technology Course Offerings
Students in the Governor’s School for Science & Technology (GSST) program take the courses that follow. Students will select one of three academic strands as their focus for their Governor’s School experience. Each strand provides a unique emphasis on both the science subject matter and associated career fields. All courses are weighted, college-level courses.

ADVANCED CHEMICAL ANALYSIS
Course Number: SC3500 (4471)
Prerequisites: High school Biology & Chemistry, Algebra II/Trig
Grade Level: 11
Credit: 2 weighted high school credits for the year long course
Location: New Horizons Governor’s School
This course focuses on the fundamental principles and laws of chemistry. Extensive laboratory work and problem solving will serve as the basic tools for students to explore kinetics, acid/base chemistry and equilibrium. The course will provide insights into organic and inorganic chemistry. The students will explore advanced concepts such as thermochemistry, electrochemistry and organic chemistry. The course will emphasize problem solving through chemical calculations. Advanced Chemical Analysis is a college-level course with a strong focus on laboratory work. It examines topics typically studied during the first year of college by science majors.

ADVANCED BIOLOGICAL ANALYSIS
Course Number: SC2520 (4371)
Prerequisites: Pre-Calculus; Advanced Chemical Analysis
Grade Level: 12
Credit: 2 college-level weighted high school credits
Location: New Horizons Governor’s School
In the fall semester, topics in the field of cell and molecular biology will be addressed, some of which include the roles of biological macromolecules, cellular organization and metabolism, and cellular processes such as communication, reproduction, respiration, and photosynthesis. In addition, mechanisms of inheritance and control of gene expression will be examined, followed by a study of developments in biotechnology. In the spring semester, evolution, phylogeny, and the diversity of living things will be discussed, with a special focus on the anatomy and physiology of animals. The laboratory experience is a major component of the course, allowing students the opportunity to use technologies applied in research, medical, and forensic laboratories while designing their own experiments and analyzing and interpreting their results. The anatomy and physiology of various vertebrate organ systems will be compared while dissecting animals in the laboratory. Advanced Biological Analysis is a college-level course that examines the topics typically studied during the first year of college by biology majors.
SCIENTIFIC PROGRAMMING I & INQUIRY PHYSICS
Course Number: SC4530, MA5030 (4510, 3181)
Prerequisites: Algebra II/Trig and Scientific Programming I
Grade Level: 11
Credit: 2 weighted high school credits for the year long course
Location: New Horizons Governor’s School
This course will provide a detailed study of the fundamental concepts of programming (in Java) and non-calculus based physics. It begins with a general overview of the field of computer science in the areas of hardware, software and programming languages. The student is introduced to the fundamentals of data types, decision structures, loops, single and multi-dimensional arrays, files and methods. The following concepts of object-oriented programming in Java are covered – class fields, methods, operator overloading, interaction between objects, passing objects as arguments, and returning objects from methods, inheritance and polymorphism. Additional topics include text-processing (using the `String`, `StringBuilder` and `StringTokenizer` classes), lists (the `ArrayList` class), exception handling, graphic user interface (GUI) applications (with event handling) and applets. No prior knowledge in programming is required. Topics in mechanics and thermodynamics are covered in Physics.

SCIENTIFIC PROGRAMMING II & INQUIRY PHYSICS
Course Number: SC4540, MA5040 (4520, 3182)
Prerequisites: Algebra II/Trig and Scientific Programming I
Grade Level: 12
Credit: 2 weighted high school credits for the year long course
Location: New Horizons Governor’s School
This course will provide an exhaustive study of data structures (linked lists, stacks, queues, binary search tress and graphs) and algorithms (searching, sorting, shortest path, and spanning tree). Students will also gain an ability to design programming projects which implement concepts in the areas of graphical user interfaces, networking, cryptography, machine learning and modeling and simulation of discrete and continuous systems. Students will continue to explore the advanced topics of object oriented programming in the Java programming language.

COLLEGE MODERN PRE-CALCULUS
Course Number: MA4130 (3162)
Prerequisites: Algebra II/Trig Grade Level: 11, 12
Credit: 1 weighted high school credit for the year long course
Location: New Horizons Governor’s School
This course is an intensive, rigorous approach to mathematics designed to prepare students for college calculus. First semester, students will focus on the algebraic and geometric properties of polynomial, rational, exponential, logarithmic, and trigonometric functions, and engage in discussions about how these models are represented in the real world. Second semester, students will learn the analytic properties of trigonometric functions and geometric conics, as well as learning the properties of polar coordinates, vectors, matrices, parametrics, and sequences and series. The course concludes with an introduction to calculus.

COLLEGE CALCULUS
Course Number: MA4260 (3177)
Prerequisites: Pre-Calculus
Grade Level: 11, 12
Credit: 1 weighted high school credit
Location: New Horizons Governor’s School
This course covers 2 semesters of university-level calculus for scientists and engineers, emphasizing understanding and application. The first semester covers limits and continuity of functions, techniques and applications of differentiation, and introduces integration. The second semester covers applications and advanced techniques of integration, differential equations, sequences and series, and analytical geometry. Upon completion of this course, student will understand both the geometric and rate of change analyses of differential and integral calculus. Students will apply their understanding of calculus to modeling real-world situations mathematically and be able to solve those mathematical models. Successful completion of this course will prepare students to enroll in multivariable calculus/linear algebra.
MULTIVARIABLE CALCULUS/LINEAR ALGEBRA
Course Number: MA4600 (3178)
Prerequisites: GSST College Calculus
Grade Level: 12
Credit: 1 weighted high school credit for the year long course
Location: New Horizons Governor’s School
In multivariable calculus, students extend their study of calculus from the plane into 3-dimensional space and beyond. After an initial examination of geometry and algebra of 3-space, students will use differential and integral calculus to study the nature of curves and surfaces in 3-space. Topics include linear approximations of curves and surfaces in 3-space, optimization of functions in several variables, and use of integral calculus to study area, volume, and other applications. The semester concludes with an examination of the calculus vector fields. In linear algebra, students use matrix theory to solve systems of linear equations and apply knowledge of the determinant to describe the nature of those solutions. The algebra and applications of linear transformations will be studied in both real and general vector spaces. Students will calculate eigenvalues and eigenvectors of linear transformations and use these to diagonalize linear systems. Applications include best fit functions and solutions of systems of 1st order, linear differential equations.

STATISTICAL RESEARCH METHODS
Course Number: MA4510 (3190)
Prerequisites: Pre-Calculus
Grade Level: 12
Credit: 1 weighted high school credit for the year long course
Location: New Horizons Governor’s School
This course is a comprehensive conceptual and practical presentation of probability, descriptive/inferential statistics, and the key ideas underlying statistical and quantitative reasoning. Statistical methods of organizing, summarizing, and displaying data combined with statistical testing are used to solve problems from a myriad of areas such as business, engineering, biology, and medicine. Advantages and limitations of statistical methods are developed. Graphing calculators and Minitab statistical software are extensively utilized. The emphasis is on the interpretation of the statistical results rather than the mere computation. Topics include random variables, sampling, distribution families, binomial and Poisson probabilities, conditional probability, estimations, data analysis, contingency tables, frequentist and Bayesian perspectives, simple and multiple regression analysis including linear, power, and exponential fit, confidence intervals, hypothesis testing for means and proportions, Chi-square, ANOVA, and several non-parametric testing, and design of experiments.

RESEARCH METHODOLOGY & ETHICS
Course Number: SC1500 (4610)
Prerequisites: None
Grade Level: 11
Credit: 1 weighted high school credit for the year long course
Location: New Horizons Governor’s School
Students will study contemporary issues in scientific research while conducting independent research projects outside of class. Students are encouraged to select projects consistent with their strand or career goals. Course topics include research design strategies, data analysis and representation (with and without computer-assistance), norms of conduct for ethical research behavior, and the historical basis for current research regulations, among others. All students must conduct a review of the primary literature to support their research design assumptions, prepare and present a plan of their proposed research for institutional review and approval, conduct their studies and report their findings via symposium, judged by professionals in various fields. All students complete application materials for the Tidewater Science and Engineering Fair, and participation in this, and other fairs, is highly encouraged. This course will serve as a preparatory course for the Honor Research and Mentorship Program.
ENVIRONMENTAL SCIENCE: RESEARCH APPLICATIONS/MENTORSHIP
Course Number: SC1520, SC1530 (4271, 4612)
Prerequisites: Pre-Calculus
Grade Level: 12
Credit: 2 college-level weighted high school credits
In the fall semester, students integrate aspects of biology, chemistry, earth science and physics in the study of the environment. Exploration of relationships between organisms and their biotic and abiotic environment at multiple levels of biological system hierarchy serves as the foundation for this course. Laboratory and fieldwork are integral components of the course. Students undertake monthly sampling of a nearby pond ecosystem for water quality and biotic components. While analyzing their own data, students will become familiar with concepts such as spatial and temporal variation in natural systems, species diversity and community similarity indices. Critical thinking, risk analysis and cost-benefit analysis will be emphasized as students identify and analyze alternative solutions to complex environmental problems. Current or on-going environmental issues and/or case histories will be emphasized.

Spring semester will emphasize ecological principals from physiological ecology to ecosystem ecology. Mentorship involves students in concentrated research or project development in firms and laboratories throughout the Tidewater area. Students are supervised by mentors who are scientists, engineers, physicians and other professionals. Students plan, implement, document and present research or projects chosen in consultation with their mentors. Students refine their research and presentation techniques, problem-solving, critical thinking and leadership skills. Students gain proficiency with the TI-83 scientific calculator and Minitab statistical software for presentation and analysis of data. This course provides students with an opportunity to integrate theory, knowledge and application through a research experience.

CALCULUS-BASED ENGINEERING PHYSICS I & II: MECHANICS TO ELECTROMAGNETISM
Course Number: SC4450 (4571)
Prerequisites: Pre-Calculus
Co-requisite: Enrollment in GSST College Calculus Course
Grade Level: 11
Credit: 2 weighted high school credits for the year long course
Location: New Horizons Governor’s School
This is a mathematically rigorous course that investigates the principals of classical mechanics, gravitation, periodic motion, electric and magnetic field theory, AC and DC circuit theory, geometric optics through in-depth discussion, concept development and experimental laboratory activities. The course also develops problem solving skills which emphasize the importance of inquiry in science and integrates the overarching themes of conservation and symmetry. Laboratory experiments use apparatuses such as dynamic tracks, ballistic pendulums and different LabPro sensors to investigate fundamental physics theories and mathematical concepts. Computer data acquisition software is utilized to collect, analyze and graph experimental data. The course encourages hands-on activities, class participation, and students taking responsibility for their own learning. Students will be provided many opportunities throughout the course to design and carry out investigations and to analyze and evaluate data. Learning fundamental principles, generalizations, model building and learning to apply course material to improve thinking, problem solving and decision making are essential general goals. Gaining factual knowledge and developing specific skills, competencies and points of view needed by professionals are important general goals.
CALCULUS-BASED ENGINEERING PHYSICS III & IV: MODERN PHYSICS & APPLIED PHYSICS:
ENGINEERING DESIGN PRINCIPLES
Course Number: SC4560 (4580)
Prerequisites: Calculus-based Engineering Physics I and II
Grade Level: 12
Credit: 2 weighted high school credits for the year long course
Location: New Horizons Governor’s School
This is a mathematical rigorous course that investigates the principles of classical mechanics, gravitation, periodic motion, electric and magnetic field theory, AC and DC circuit theory, geometric optics through in-depth discussion, concept development, and inquiry-based experimental laboratory activities. The course also develops problem solving skills which emphasize the importance of inquiry in science and integrates the overarching themes of conservation and symmetry. Laboratory experiments use apparatuses such as dynamic tracks, ballistic pendulums, and different LabPro sensors to investigate fundamental physics theories and mathematical concepts. Computer data acquisition software is utilized to collect, analyze, and graph experimental data. The course encourages hands-on activities, class participation, and students taking responsibility for their own learning. Students will be provided many opportunities throughout the course to design and carry out investigations and to analyze and evaluate data. Learning fundamental principles, generalizations, model building and the ability to apply course material to improve thinking, problem solving, and decision making are essential general goals. Gaining factual knowledge and developing specific skills, competencies, and points of view needed by professionals are important general goals.
**Engineering Strand** (Prerequisites - 2 of the following advanced sciences: Biology, Chemistry and/or Physics, with a math minimum of Pre-Calculus)

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus-based Engineering Physics I &amp; II</td>
<td>Calculus-based Engineering Physics III &amp; IV: Engineering Design</td>
</tr>
<tr>
<td>2 HS/8 TNCC credits</td>
<td>2 HS / 2 TNCC credits *pending approval</td>
</tr>
<tr>
<td>Research Methodology &amp; Ethics</td>
<td>Env Sci /HR/M</td>
</tr>
<tr>
<td>1 HS / 3 TNCC credits* pending approval</td>
<td>2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td>Calculus</td>
<td>Multivariable (MV) - Linear Algebra (LA) / Statistics</td>
</tr>
<tr>
<td>1 HS/8 TNCC credits</td>
<td>4 TNCC credits for Env Sci</td>
</tr>
<tr>
<td></td>
<td>2 TNCC credits for HR/M</td>
</tr>
<tr>
<td></td>
<td>1 HS/7 TNCC credits for MV-LA</td>
</tr>
<tr>
<td></td>
<td>1 HS/3 TNCC credits for Statistics</td>
</tr>
</tbody>
</table>

*Biological Science Strand* (Prerequisites - Biology and Chemistry, with a math minimum of Algebra II/Trig)

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Chemical Analysis</td>
<td>Advanced Biological Analysis</td>
</tr>
<tr>
<td>2 HS/8 TNCC credits</td>
<td>2 HS/8 TNCC credits</td>
</tr>
<tr>
<td>Research Methodology &amp; Ethics</td>
<td>Env Sci /HR/M</td>
</tr>
<tr>
<td>1 HS / 3 TNCC credits* pending approval</td>
<td>2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td>Modern Pre-Calculus / Calculus</td>
<td>4 TNCC credits for Env Sci</td>
</tr>
<tr>
<td>1 HS/6 TNCC credits for Pre-Calculus</td>
<td>2 TNCC credits for HR/M</td>
</tr>
<tr>
<td>1 HS/8 TNCC credits for Calculus</td>
<td>1 HS/7 TNCC credits for Calculus</td>
</tr>
<tr>
<td>5 HS/9-13 college credits</td>
<td>1 HS/7 TNCC credits for MV-LA</td>
</tr>
<tr>
<td>9 HS/25-29 college credits</td>
<td>1 HS/3 TNCC credits for Statistics</td>
</tr>
<tr>
<td>4 HS/14-16 college credits</td>
<td>1 HS/6 TNCC credits</td>
</tr>
<tr>
<td>5 HS/17-22 college credits</td>
<td>1 HS/7 TNCC credits for MV-LA</td>
</tr>
<tr>
<td>9 HS/31-38 college credits</td>
<td>1 HS/3 TNCC credits for Statistics</td>
</tr>
</tbody>
</table>
| *Biological Science Strand* - It is recommended that students take high school Physics at their home school division.

**Scientific Programming Strand** (Prerequisites - 2 of the following advanced sciences: Biology, Chemistry and/or Physics, with a math minimum of Algebra II/Trig)

<table>
<thead>
<tr>
<th>11th grade year</th>
<th>12th grade year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiry Physics &amp; Scientific Programming I</td>
<td>Inquiry Physics &amp; Scientific Programming II – Digital Devices</td>
</tr>
<tr>
<td>2 HS credits</td>
<td>2 HS/11TNCC credits</td>
</tr>
<tr>
<td>Research Methodology &amp; Ethics</td>
<td>Env Sci /HR/M</td>
</tr>
<tr>
<td>1 HS / 3 TNCC credits* pending approval</td>
<td>2 HS credits for Env Sci / HR / M</td>
</tr>
<tr>
<td>Modern Pre-Calculus / Calculus</td>
<td>4 TNCC credits for Env Sci</td>
</tr>
<tr>
<td>1 HS/6 TNCC credits for Pre-Calculus</td>
<td>2 TNCC credits for HR/M</td>
</tr>
<tr>
<td>1 HS/8 TNCC credits for Calculus</td>
<td>1 HS/8 TNCC credits for Calculus</td>
</tr>
<tr>
<td>4 HS/6-8 college credits</td>
<td>1 HS/7 TNCC credits for MV-LA</td>
</tr>
<tr>
<td>5 HS/20-25 college credits</td>
<td>1 HS/3 TNCC credits for Statistics</td>
</tr>
<tr>
<td>9 HS/28-33 college credits</td>
<td>Total 9 HS/31-38 college credits</td>
</tr>
<tr>
<td>Total 9 HS/28-33 college credits</td>
<td>Total 9 HS/31-38 college credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>HS Credits</th>
<th>TNCC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12th</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>
Governor's Early College Scholars Agreement

The responsibilities of each party are outlined herein and the corresponding signature assures acceptance of responsibility of each party.

The student agrees to:

- Earn an Advanced Studies Diploma with a Governor's Seal;
  - To receive a Governor's seal, students must
  - Complete the requirements for the Advanced Studies Diploma;
  - Earn a "b" average or higher; and
  - Successfully complete at least one Advanced Placement (AP), International Baccalaureate (IB), or one college-level course for credit
- Earn at least 15 transferable college credits while enrolled in high school. College credits toward completion of this Agreement will be considered earned by:
  - Completing dual enrollment/dual credit courses and earning a "C" or better in the courses
  - Completing advanced placement courses i.e., AP, IB or Cambridge and
    - Scoring a "3" or higher on the AP examinations or
    - Scoring a "4" or higher on any form of the IB examinations or
    - Scoring a "D" or better on the Cambridge examinations
  - Earning college credits by passing College Level Examination Program (CLEP) examinations
  - Completing college-level courses and document credit awarded
  - Apply and be accepted to a college or university

____________________  ____________________
Student Signature   Date

The parent/guardian agrees to:

- Support and monitor student’s academic work and progress in school, particularly as it relates to fulfillment of the requirements for the Governor's Early College Scholars Agreement.

I understand that the actual number of transferable college credits awarded depends on the criteria of the admitting college or university.

____________________  ____________________
Parent/Guardian Signature   Date

The high school agrees to:

- Provide the student opportunities to access college-level courses and/or advanced placement courses needed to fulfill this agreement.
- Provide the counseling services needed to fulfill the requirements of the Governor's Early College Scholars Agreement, including assisting students in developing a program of study.
- Provide the Virginia Department of Education with data regarding participation and completion of the Governor’s Early College Scholars program.

____________________  ____________________
High School Principal Signature   Date

____________________  ____________________
High School Guidance Counselor Signature   Date
Newport News Scholars Program Application

Student’s Name: ____________________________________
Counselor’s Name: ____________________________________

Date: __________________

The student agrees to:
• Earn an Advanced Studies Diploma
• Earn at least five Advanced Placement courses (at least one for each core content area – English, social studies, science, and mathematics as well as a dual enrollment (college course) or an additional Advanced Placement course must be included in the student's program of study to qualify for a Scholar's Seal and take the Advanced Placement examination for all Advanced Placement courses taken.
• Complete a four-course sequence in at least one world language.
• Complete an individual Newport News Public Schools Scholars Project (see details on the attached document).
• Earn at least one hundred hours of elective community service which should be completed by the end of the eleventh grade (see details on the attached document).

________________________________________
Student Signature
Date

The parent/guardian agrees to:
• Support and monitor the student’s academic work and progress in school, particularly as it relates to the fulfillment of the requirements for the Newport News Public Schools Scholars Agreement.

________________________________________
Parent/Guardian Signature
Date

PROPOSED SCHOLARS RESEARCH PROJECT
On a separate double-spaced typed sheet of paper, please describe your proposed NNPS Scholars Project. The description should be clear and concise and not exceed 250 words. It should include what you plan to study/research, why this is important to study/research and your plan for the research/study. In addition, please describe the tangible product, i.e. advanced research paper/thesis, complex multi-media project, a specialized portfolio, etc.

PROPOSED COMMUNITY SERVICE PROJECT
On a separate double-spaced typed sheet of paper, describe your community service project. Describe how the project will benefit the citizens of Newport News. Your description should not exceed 100 words.

PLEASE SUBMIT THE COMPLETED APPLICATION TO YOUR SCHOOL COUNSELOR BY the last day of the first semester.

For Office Use Only
☐ Research Project Approved
☐ Research Project Not Approved
☐ Community Service Project Approved
☐ Community Service Project Not Approved
ACADEMIC SERVICES

Nancy Sweat  
**Executive Director, Curriculum & Development**  
757-283-7850, ext. 10208

Michelle Mitchell  
**Executive Director, Student Advancement**  
757-283-7850, ext. 10427

Dr. Crystal B. Taylor  
**Supervisor, Career & Technical Education**  
757-283-7850, ext. 10226

Dr. Claudia Hines  
**Director, School Counseling**  
757-591-4927, ext. 10447

Denise Fehrenbach  
**Supervisor, English**  
757-283-7850, ext. 10268

Kimberly Beckerdite  
**Supervisor, Gifted Services**  
757-591-4566

April Vazquez  
**Supervisor, English as a Second Language**  
757-283-7850, ext. 10251

Dr. Aaron Smith  
**Program Administrator, Aviation Academy**  
757-886-2745 - Denbigh High School

Duke Conrad  
**Supervisor, Health & Physical Education**  
757-283-7850, ext. 10241

Toinette Outland  
**Program Administrator, Governor's STEM Academy & University Magnet**  
757-928-6100, ext. 17567 - Heritage High School

Letha Brooks  
**Supervisor, Mathematics 6 – 12**  
757-283-7850, ext. 10261

Patty Chaney  
**Program Administrator, International Baccalaureate & Governor's Health Sciences Academy**  
757-591-4700, ext. 67521 - Warwick High School

Rodney Culverhouse  
**Supervisor, Science 6 - 12**  
757-283-7850, ext. 10117

John Boyles  
**Program Administrator, Arts & Communication**  
757-886-7530 - Woodside High School

Renita Williams  
**Supervisor, Social Studies 6 – 12**  
757-283-7850, ext. 10242

Ray Price  
**Program Administrator, Telecommunications**  
757-591-4687, ext. 103 - Telecommunications Center

Patricia Franklin  
**Supervisor, Visual and Performing Arts K – 12**  
757-283-7850, ext. 10200

Dewey Ray  
**Principal, New Horizons at Butler Farm Road Hampton**  
757-766-1100

Helen Small  
**Supervisor, World Language K – 12**  
757-283-7850, ext. 10253

Bruce Schaffer  
**Principal, New Horizons at Woodside Lane Newport News**  
757-874-4444
NEWPORT NEWS PUBLIC SCHOOLS ADMINISTRATION  
12465 Warwick Boulevard  
Newport News, VA 23606-3041  
757-591-4500

Dr. Ashby Kilgore  
Superintendent

Brian Nichols  
Chief Academic Officer

Susan Tilley  
Executive Director, Secondary School Leadership

---

Denbigh High School  
259 Denbigh Boulevard, 23608-3399  
Anthony Vladu, Principal  
Serethea D. Brown, School Counseling Director  
757-886-7700 Fax: 757-872-6542

Heritage High School  
5800 Marshall Avenue, 23605-2420  
Shameka N. Gerald, Principal  
Rick Watson, School Counseling Director  
757-928-6100 Fax: 757-247-9058

Menchville High School  
275 Menchville Road, 23602-6895  
Robert Surry, Principal  
Lorraine Adkins, School Counseling Director  
757-886-7722 Fax: 757-875-0648

Warwick High School  
51 Copeland Lane, 23601-2399  
Anthony Frazier, Principal  
Donzaleigh Douglas, School Counseling Director  
757-591-4700 Fax: 757-596-7415

Woodside High School  
13450 Woodside Lane, 23608-1364  
Jonathan Hochman, Principal  
Kathy DiMarino, School Counseling Director  
757-886-7530 Fax: 757-877-0480

Achievable Dream Middle and High School  
5720 Marshall Avenue, 23605-2420  
Marilyn Sinclair-White, Principal  
757-283-7820 Fax: 757-283-7844

Crittenden Middle School  
6158 Jefferson Avenue, 23605  
Felicia Barnett, Principal  
757-591-4900 Fax: 757-838-8261

Dozier Middle School  
432 Industrial Park Drive, 23608  
Lisa Gatz, Principal  
757-888-3300 Fax: 757-887-3662

Gildersleeve Middle School  
1 Minton Drive, 23601  
Courtney Mompoint, Principal  
757-591-4862 Fax: 757-596-2059

Hines Middle School  
561 McLawhorne Drive, 23601  
Dr. Amanda Corbin-Staton, Principal  
757-591-4878 Fax: 757-591-0119

Huntington Middle School  
3401 Orcutt Avenue, 23607  
Cleo Holloway, Principal  
757-928-6846 Fax: 757-245-8451

Passage Middle School  
400 Atkinson Way, 23608  
Janelle Spitz, Principal  
757-886-7600 Fax: 757-886-7661

B.T. Washington Middle School  
3700 Chestnut Ave, 23607  
Sean Callender, Principal  
757-928-6860 Fax: 757-247-1119
The Newport News School Division does not discriminate on the basis of race, color, national origin, sex, creed, marital status, age or disability in its programs, activities or employment practices as required by the Title VI, Title VII, Title IX, Section 504, and ADA regulations. The Compliance Supervisor for Human Resources at 12507 Warwick Blvd., Newport News, VA 23606, 757-881-5061, is responsible for coordinating the division's efforts to meet its obligations under Section 504, Title IX, the ADA, and their implementing regulations.