Introduction

This High School Program of Study booklet is intended to provide valuable information to allow students and parents to make selections that will best prepare for future success. It has been designed to explain the rich variety of challenging and rigorous choices available.

The additional demands of high school course work for students throughout the state make the expectations for graduation far more difficult for students than in past years. In anticipation of meeting these demands, Anne Arundel County Public Schools offers complexity in course work as well as electives to help to diversify each high school experience.

Students are encouraged to work with their teachers and counselors to make decisions appropriate for achieving individual goals. AACPS continues to explore ways to introduce more rigor, relevancy, diversity, and specialization to all high school course offerings and counselors will be able to fully explain courses that are implemented after the printing of this booklet.

How students spend their time in school will only make their future better and their goals more attainable. All members of AACPS urge each student to take full advantage of the courses that are provided in this booklet as well as in the classroom. Student success is the district’s greatest achievement, and Anne Arundel County Public Schools is committed to students’ continued development.

Superintendent of Schools
George Arlotto, Ed.D.

AACPS Board of Education
Stacey Korbelak, President
Patricia R. Nalley, Vice President
Teresa Milio Birge
Tom Frank
Julie Hummer
Allison Pickard
Deborah T. Ritchie
Solon K. Webb
 Jacob Horstcamp

Please Note:
Although deemed accurate when printed, information in this booklet may change during the year as BOE policies and regulations are updated. For the most current version of this booklet, visit the AACPS website:
www.aacps.org/html/studt

To see Board Policies and Regulations, visit:
www.aacps.org/html/BoardOfEducation
4 Steps to Graduation

A student shall satisfactorily complete four years of approved study beyond the eighth grade, unless an alternative plan is approved by the Superintendent of Schools.

1 Credits

Earn a minimum of...

26 Credits

(See page 2)

2 Assessments

Pass state-mandated assessments in...

Algebra
Biology
English
Government

(See page 4)

3 Service Learning

Complete...

75 Hours

...of Service Learning in grades 5 – 11

(See page 3)

4 Choose a completer...

Completer Program Pathways

<table>
<thead>
<tr>
<th>College Completer</th>
<th>Career Completer</th>
<th>Dual Completer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra 2</td>
<td>A CTE Completer Program</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>2 credits of the same Language or 2 credits of Advanced Technology</td>
<td>Algebra 2 and 2 credits of the same Language or 2 credits of Advanced Technology</td>
</tr>
<tr>
<td>2 credits of the same Language</td>
<td>Employment and/or post secondary education after High School</td>
<td></td>
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<tr>
<td>Post secondary education after High School</td>
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</table>

Minimum High School Diploma

| 2 credits of the same Language or 2 credits of Advanced Technology |

(See page 7)
# High School Graduation Requirements

<table>
<thead>
<tr>
<th>Minimum Credits Required for Graduation—26</th>
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</thead>
</table>
| **English**                               | 4 | 1 credit in *English 9*  
|                                            |   | 1 credit in *English 10*  
|                                            |   | 1 credit in *English 11*  
|                                            |   | 1 credit in *English 12*  
| **Social Studies**                        | 3 | 1 credit in *History of the United States*  
|                                            |   | 1 credit in *World History*  
|                                            |   | 1 credit in *United States Government*  
| **Mathematics**                           | 4* | 1 credit in *Algebra 1*  
|                                            |   | 1 credit in *Geometry*  
|                                            |   | 2 mathematics elective credits  
|                                            | (*Algebra 2 for college completers) |  
| **Science**                               | 3+ | 1 credit in *Biology*  
|                                            |   | 2 credits, including laboratory experience, in any or all of the following areas:  
|                                            |   | *Earth Science*  
|                                            |   | *Life Science*  
|                                            |   | *Physical Science*  
| **Physical Education**                    | 1 | 0.5 credit of *Fitness for Life*  
|                                            |   | 0.5 credit Physical Education Elective  
| **Health**                                | 0.5 | 0.5 credit in Health Education  
| **Basic Technology**                      | 1 | *Foundations of Technology A* (0.5 credit)  
|                                            |   | *Foundations of Technology B* (0.5 credit)  
|                                            |   | or one of the following one credit courses available at Project Lead the Way schools only:  
|                                            |   | *Honors Principles of Engineering*  
|                                            |   | or *Honors Engineering Design*  
| **Fine Arts**                             | 1 | Music, Art, Dance, and Theatre Arts courses  
| **Electives**                             | 8.5 | Any electives that result in the successful completion of a Completer Program Pathway  

**State-Mandated Assessments**

Students are required to pass the High School Assessments (HSA) in Biology and US Government, and the Partnership for Assessment of Readiness for College and Careers (PARCC) assessments in Algebra 1 and English 10. All four assessments are given at the completion of the corresponding course. Please check with your school counselor to discuss possible options to meet these assessment requirements.

**World and Classical Language Requirement**

Students may elect to take two credits of a world and classical language rather than two credits of an advanced technology or a career completer program. A student with the required math courses and two credits of a World and Classical Language meets one of the criteria for qualifying the student for the University System of Maryland. It is recommended that students who elect the World and Classical Language option continue in the program beyond the second level. Some specialized programs, as well as many colleges and universities, require additional credits in world and classical language. Check with your school counselor for details.

**Advanced Technology Requirement**

Students may elect to take two credits of advanced technology rather than two credits of World and Classical Language or a career completer program. A student with the required math courses and two credits of advanced technology will qualify as a University System of Maryland Completer. The student, however, must verify the admissions requirements for each University System of Maryland institution to determine if the advanced technology courses meet the institution’s admission requirements.

**Service Learning Requirement**

MSDE requires students to complete 75 hours of Service Learning for graduation. Anne Arundel County Public Schools integrates this requirement into existing subjects or courses starting in grade 5. Students complete service-learning projects and activities from grades 5 through 11 so that each student, upon completion of grade 11, should have met the service learning graduation requirement.

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* Students seeking admission to a University System of Maryland institution should review details of math elective requirements with a school counselor  
+ Magnet, and Signature programs may require 3, 4, or 5 credits of Science and of World and Classical Language.
Service Learning Implementation in AACPS

Students in grade 5 will complete service-learning projects through social studies activities for 5 hours.

Students in grades 6 through 8 will complete service-learning projects for 10 hours in each grade level for a total of 30 hours.

Students in grades 9 through 11 will earn the following service learning hours through service-learning projects in the following courses:

• U.S. Government: 10 hours
• Science (grade 10): 10 hours
• English 11: 10 hours
• Health: 10 hours

Seniors are not exempt from completing the service learning graduation requirement and will complete service learning hours based on a prorated schedule.

Courses like H20, Child Development 1, may be used to meet this requirement for service learning.

All students transferring into an Anne Arundel County public high school from a non-Maryland public school must complete 40 hours of service learning to meet the Maryland State Department of Education (MSDE) graduation requirement at the high school level. All students transferring into an Anne Arundel County public school from within the state of Maryland must have documentation for 40 hours of service learning from their previous school(s) or complete the balance for a total of 40 hours on a prorated scale:

• Grade 12 (2nd semester): 5 hours
• Grade 12 (1st semester): 10 hours
• Grade 11: 20 hours
• Grade 10: 30 hours

High School Credit Earned in Middle School

Maryland State Board of Education policy determines the requirements for students earning high school credit for a course taken in middle school. The Code of Maryland Regulations (COMAR 13.A.03.02.04) states the following:

Credit toward high school graduation may be earned by middle school students if the following criteria are met:

a. The student has taken a high school level course meeting the local school system curricular objectives; and
b. The student passes an examination that assesses student demonstration of course objectives and the examination is equivalent in content coverage and rigor to examinations given to high school students for the course content area.

As a result, middle school students in Anne Arundel County Public Schools must meet the following credit eligibility requirements in order to earn high school credit for Algebra 1, Geometry, Algebra 2, and Levels 1 and 2 of American Sign Language, Arabic, Chinese, French, German, Italian, Spanish, or Turkish taken in middle school:

a. Earn a final passing course grade.

b. Pass the final examination (D or higher) given at the end of the fourth marking period.

- Failure to pass the final examination will result in not being awarded credit.
- In the case of Algebra 1, if a student fails the Algebra 1 final examination in middle school, but passes the course and the Algebra 1 state-mandated assessment, a student will receive credit.

Additionally, according to AACPS Board Policy and Administrative Regulation 608 II-RA, credit will be awarded upon entering ninth grade. The grade for the course will be calculated in the student’s GPA in the same manner as other high school courses, including courses with weighted grades. Failure to pass the course and/or the final examination will result in a negative impact on a student’s high school GPA.

In the event that a student is struggling with the high school course and is not earning at least a “C” the student and parent/guardian are encouraged to meet with the principal or designee to discuss appropriate options.

Parents are asked to sign and return a letter to indicate understanding the above information.

<table>
<thead>
<tr>
<th>Procedures for Promotion</th>
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<tr>
<td>Promotion from one grade level to the next is based on the number and types of credits earned as follows:</td>
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<table>
<thead>
<tr>
<th>To be promoted to grade:</th>
<th>Completed credits needed</th>
<th>Credits needed in academic subjects</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>11</td>
</tr>
</tbody>
</table>

To be considered a senior, a student must:

a. have completed at least three years in high school,

b. have successfully earned 20 appropriate credits, and

b. be enrolled in a program that allows them to meet all graduation requirements by June of the same academic year.
Assessments

Assessment is an important part of instruction. Students take a variety of tests during their years in public school, including state mandated achievement tests, county assessments, ability tests, and assessments required for graduation from high school. Students may also take college level exams related to Advanced Placement studies, International Baccalaureate Diploma Programme, and scholastic aptitude tests required for college admission. A student’s academic performance is based on more than test results; however, test and assessment results are vital to monitoring student progress, as well as evaluating and improving instruction and curricula to ensure student success. The state mandated assessments provide educators, parents, and the public valuable information about student, school, school system, and state performance.

Contact the Testing Office, 410-222-5147 or your local school counseling office for details on the following tests. Additional information about the results of these assessments can be found at: www.mdreportcard.org.

Partnership for Assessment of Readiness for College & Careers (PARCC)
The Partnership for Assessment of Readiness for College and Career (PARCC) assessments are anchored in College and Career readiness; provide comparability across states; and are able to assess and measure higher-order thinking skills such as critical thinking, communication, and problem-solving. Developed by a number of states working together, the PARCC assessments will measure whether students are on track to be successful in college and their careers. The high quality, computer-based assessments in English/Language Arts (ELA) and Mathematics will give teachers, schools, students, and parents better information on whether students are on track in their learning for success after high school. The assessments will also provide valuable information and tools to help teachers customize learning to meet the needs of students.

Students in high school will take the assessments in Algebra 1 and English 10 while enrolled in the corresponding course. The Algebra 1 and English 10 assessments will replace the High School Assessments in Algebra 1 and English 10 as graduation requirements. Select students may also take the Algebra 2 and English 11 assessments.

High School Assessments (HSA)
The High School Assessments (HSA) consist of two tests—one each in Biology and U.S. Government. Students taking high school level courses, take each exam after completing the corresponding course. The High School Assessment in Biology also fulfills the requirement under No Child Left Behind (NCLB) that high school students be administered an assessment in science once in high school. Both tests are required for graduation.

The Bridge Plan for Academic Validation
The Bridge Plan for Academic Validation provides a process for earning graduation status by helping to ensure that all students have a fair opportunity to demonstrate their knowledge and skills when traditional testing has not been an effective measure for them. Please see your school counselor for further information. In schools where enrollment demands, a non-credit Bridge Class may be offered.

Alternate Assessments
Alternate Assessments in Reading, Mathematics, and Science are offered for students with the most significant cognitive disabilities. Students must meet specific eligibility criteria. Decisions about participation is those assessments are made annually by the student’s IEP team. Please contact your school’s special education department or the school test coordinator for more information.

ACCESS: The English Language Proficiency Test (ELPT)
ACCESS, an English Language Proficiency Test, has been developed to meet the requirements in NCLB for assessing English learners on their English proficiency in listening, speaking, reading, and writing. Annually, all English learners from K–12 take this test. Individual student results are shared with the parent/guardian. For additional information on the English Language Proficiency Test, please contact the English Language Acquisition Office at 410-222-5416.

Advanced Placement (AP) Exams
Students enrolled in AP courses have the opportunity to sit for the corresponding exam. Colleges and universities use the AP results to determine college preparedness, student motivation, and placement. Students may have the opportunity to earn credit or advanced standing at many of the nation’s colleges and universities. High school students are urged to take the Advanced Placement (AP) exams in specific subjects such as English, world and classical languages, chemistry, history, calculus, psychology, biology, physics, economics, computer science, environmental sciences, statistics, and fine arts. Except for AP Studio Art, which is a portfolio assessment, each AP exam contains a free response section (either essay or problem solving) and a section of multiple choice questions. The modern language exams also have a speaking component, and the AP Music Theory Exam includes an optional sight singing task. Each AP Exam is given an overall score of 1, 2, 3, 4, or 5, with 5 indicating a student who is extremely well qualified to receive college credit and/or advanced placement based on an AP Exam grade. Check with the colleges and universities to which you are applying for credits they may award. A fee is required to take each exam. Financial assistance may be offered based on student need. Check with your local high school counseling office for
The AACPS Programs of Choice initiative offers a range of specialized fields of study to increase excellence and opportunity for all secondary students. Programs of Choice | 5

Signature Programs
Signature Programs offer students a series of courses designed to connect classroom instruction with real-world situations and workforce skills relevant to each school’s local community. Each high school in Anne Arundel County will offer unique Signature-related courses that students can register for during their annual student scheduling. If you are interested in your school’s Signature program, visit our website (www.aacps.org/signature) or call the Advanced Studies and Programs Signature Office at 410-590-5119.

Magnet Programs
Magnet Programs offer motivated and academically able students the opportunity to engage in a specialized course of study or emphasis on instruction that differs from the traditional curriculum offered in AACPS. There are currently five High School Magnet Programs available (see below). Admission to all Magnet Programs is by formal application. If you are interested in any of our Magnet Programs, visit our website (www.aacps.org/magnet) or call the Advanced Studies and Programs Magnet Office at 410-222-5391 x1.

BioMedical Allied Health (BMAH)
The BioMedical Allied Health program is offered at Glen Burnie High School for students interested in exploring the fields of the health-care industry. Through partnerships with major hospitals and institutions in the Baltimore-Washington Professional Corridor and through partnerships with local colleges and universities, BMAH students will participate in regular job shadows and internship opportunities to gain real-world experience in the biomedical and allied health fields.

Centers for Applied Technology (CAT)
The Centers for Applied Technology, offered at CAT North and CAT South, provide students with technical and academic skills needed for community involvement, continuing education, and career opportunities. CAT students have the chance to apply theory and knowledge towards skills proficiency in the classroom and to develop employable skills through hands-on, real-world experience. (see page 64)

International Baccalaureate Middle Years and Diploma Programme (IB MYP/DP)
The International Baccalaureate Middle Years and Diploma Programme is offered at Annapolis, Meade, and Old Mill High Schools for students interested in taking an active role in their local and global communities and connecting their education with the world around them. Through the internationally recognized IB program, students will learn to prepare for success in post-secondary education and as 21st century visionary leaders. The IB MYP prepares students in grades 9 and 10 for the IB DP in grades 11 and 12.

Performing and Visual Arts (PVA)
The Performing and Visual Arts program is offered at Annapolis and Broadneck High Schools for serious arts students interested in building their artistic skill and gaining real-world experience to prepare for higher education or a career in the arts. Through an arts-intensive curriculum, PVA students have the opportunity to foster their artistic passions both in front of an audience and behind the scenes through premiere arts venues and exhibitions.

Science, Technology, Engineering, & Mathematics (STEM)
The Science, Technology, Engineering, and Mathematics program is offered at North County and South River High
Taking Advanced Courses

The Maryland Charter School Act of 2003 was established as an alternative means within the existing public school system to provide innovative learning opportunities and creative educational approaches to improve student education. Maryland’s law emphasizes a focus on innovation and student achievement and in so doing places a premium on the relationship between the school system and the public charter school applicant.

Public Charter Schools are independent, tuition-free, publicly funded schools that are open to all students on a space available basis. If there are more applicants than seats available a lottery is required by law. Charter schools follow the same laws, policies and regulations as all public schools. However, charter schools provide families with additional educational choices so that parents can choose to send their child to a school that has an instructional approach that fits their child’s learning needs or academic interests.

For additional information on the AACPS Charter School Program, call 410-224-8572 or visit www.aacps.org/html/schol/charterschools.asp.

Chesapeake Science Point Public Charter School

Chesapeake Science Point Public Charter School in partnership with students, parents and the community will attain educational excellence by providing a rigorous and quality education for middle and high school students with a special focus on science, math and technology while preparing them to excel in an increasingly technological and global society.

Grades Served: 6–12

www.mycsp.org

Weighted Grading

Students who earn an A, B, or C in an Honors, Advanced Placement (AP), or International Baccalaureate course are awarded additional quality points, known as weighted grading, as follows:

- An additional 0.5 quality points for an Honors or IB MYP course.
- An additional 1.0 points for an AP or IB DP course.
- No additional points are awarded for grades of D, or E.

For example, an A received in a regular course is worth 4 points toward a students GPA. An A received in an Honors or MYP course is worth 4.5 points and in an AP or IB DP course is worth 5 points. These courses may require pre-course assignments as preparation for accelerated classroom learning.

Honors Courses

These courses are distinguished by greater sophistication of content presented, skills developed, and products expected.

Advanced Placement (AP) and International Baccalaureate (IB)

Students may sometimes face a considerable challenge in rigorous AP and IB courses. After an initial period of adjustment, perhaps with additional support from the instructor, they discover they can handle the course requirements successfully. With the intention of giving students time to adjust to these challenges, withdrawal from AP courses will not be considered until the end of the first marking period. Magnet programs such as IB require a full-year commitment. A decision to drop to a lower level or withdraw from the course completely would come after consultation between the student, teacher, parent, counselor and administration.

Advanced Placement Courses (AP)

Advanced Placement courses are demanding and challenging courses intended for students who demonstrate potential for college level work. The College Board sponsors the Advanced Placement Program, and it develops, administers, and grades examinations for each advanced placement course. Many universities and colleges grant advanced standing and/or college credit on the basis of how well a student performs on the Advanced Placement test. Information regarding advanced placement courses and examinations are available from the counseling office in each high school. Students are not required to take an advanced course in order to be eligible to sit for an advanced placement examination. It should be noted that a student’s report card grade for an Advanced Placement course is determined by the classroom teacher. It is not a reflection of the results of the Advanced Placement test.

IB Middle Years Programme (IBMYP)

Students in grade 9 IB MYP are enrolled in Honors level English, American Government, Biology, Algebra 1, Geometry or Algebra 2, French or Spanish Level 2, and elective offerings. Students in MYP 10 are enrolled in Honors level English, AP Modern European History, Chemistry, Geometry, Algebra 2 or Pre-Calculus, French or Spanish 3 and elective offerings. Note that not all IB MYP courses receive additional weighting.

International Baccalaureate Diploma Programme (IBDP)

The IBDP is a rigorous and challenging program of studies for students in grades 11 & 12. The IBDP program and Diploma are recognized by school systems, colleges and universities throughout the world. Many colleges grant advanced standing and or college credit on the basis of performance in the IB Diploma assessments.

Other Advanced Courses

Some courses are as challenging and rigorous as AP courses, but are not sanctioned by the College Board. These courses receive the same weighted grading as AP courses.
Completer Program Pathways

The Maryland School Performance Program (MSPP) requires that high school students enroll in courses that prepare them for postsecondary education, gainful employment, or both. These courses are offered at the high schools and both Centers of Applied Technology, and are approved by the Maryland State Department of Education.

The three program completer pathway options are:

- College completer,
- Career completer, or
- Dual completer.

In addition to accumulating the required number of credits, students must meet the requirements of one of the following completer programs.

College Completer

The student pursues a sequence of courses in preparation for postsecondary education upon high school graduation. Minimum requirements include two years of the same World and Classical Language or two credits in advanced technology courses, and credit for Algebra 1, Geometry, and Algebra 2. Students with a 9th grade entry date of 2012-2013 or later are required to take 4 courses of rigorous mathematics and to be enrolled in Algebra 2 or beyond during senior year. Approved courses for the senior year College Completer program are: Algebra 2, Pre-Calculus, Foundations of College Algebra, Statistical Analysis, AP Calculus AB/BC, AP Statistics, Linear Algebra and Calculus 3.

Students entering 9th grade in 2014 or later are required to take a rigorous math course in each of the four years the student is enrolled in high school (Senate Bill 740) and to be enrolled in Algebra 2 or beyond during senior year for the College Completer.

Each university or college institution has guidelines for evaluating applicants who have not completed all the required courses for admission. In some cases, students who lack a required course are permitted to take it their freshman year in college. In other instances, students are permitted to demonstrate their competency in a given field as an alternative to passing a required high school course. While these represent the minimum high school course requirements for entry into University System of Maryland institutions listed above, individual campuses and programs may have additional admission requirements. Students should seek out these requirements by writing to the admissions director at the campus of choice.

<table>
<thead>
<tr>
<th>The University System of Maryland Required Coursework</th>
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<tbody>
<tr>
<td>Subject</td>
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<tr>
<td>English</td>
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<tr>
<td>Social Studies</td>
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<tr>
<td>Laboratory Science</td>
</tr>
<tr>
<td>Mathematics (Algebra 1, Geometry, Algebra 2)</td>
</tr>
<tr>
<td>The same World and Classical Language or Advanced Technology Credit</td>
</tr>
<tr>
<td>Academic Electives</td>
</tr>
</tbody>
</table>

The University System of Maryland Colleges and Universities

- Bowie State University
- Coppin State College
- Frostburg State University
- Salisbury University
- Towson University
- University of Baltimore
- University of Maryland: Baltimore
- University of Maryland: Baltimore County
- University of Maryland: College Park
- University of Maryland: Eastern Shore
- University of Maryland: University College

Anne Arundel Community College

In addition to the above University System of Maryland institutions, Anne Arundel County Public Schools enjoys an excellent working relationship with Anne Arundel Community College (AACC). AACC is an open door institution which admits those who may benefit from postsecondary education in both transfer and career programs. To help students succeed in college, AACC has established policies and procedures to evaluate and assess their academic abilities.

Career Completer

The student pursues a sequence of courses to develop skills in preparation for employment and/or post-secondary education upon high school graduation. These courses and programs are offered at both Centers of Applied Technology or at the high schools through Business Education, Family and Consumer Sciences, and Technology Education. These career completer programs are approved by the Maryland State Department of Education, and allow students to earn industry certifications and/or college credit while in high school.

Students can select from 40 programs to gain a combination of technical and academic expertise that can be utilized for immediate employment or they can continue their education in colleges, universities, technical schools, or apprenticeship programs.

Dual Completer

The student pursues courses that fulfill both College and Career Completer requirements.
# Applied Technology Programs of Choice—Benefits beyond the Diploma

Beyond graduation, students can earn certifications and credits valuable toward future career and college pathways.

<table>
<thead>
<tr>
<th>Location</th>
<th>Program</th>
<th>Earn an AACPS Diploma Plus...</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT-North and CAT-South</td>
<td>Academy of Health Professions</td>
<td>AACC Proficiency Exam (3 transcripted credits)</td>
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<tr>
<td></td>
<td></td>
<td>CPR/AED &amp; First Aid Certification - American Heart Association</td>
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<tr>
<td></td>
<td></td>
<td>Certified Nursing Assistant (CNA)</td>
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<td>Geriatric Nursing Assistant (GNA)</td>
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<td>Certified Clinical Medical Assistant (CCMA)</td>
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<td></td>
<td>Automotive Collision Repair &amp; Refinishing</td>
<td>Student Automotive Service Excellence Certification (ASE)</td>
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<td>Safety and Pollution Prevention Certification (S/P2)</td>
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<tr>
<td></td>
<td>Automotive Technology*</td>
<td>Student Automotive Service Excellence Certification (ASE)</td>
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<td></td>
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<td>Safety and Pollution Prevention Certification (S/P2)</td>
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<td>Refrigerant Recovery &amp; Recycling Certification (ASE)</td>
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<td></td>
<td>Carpentry*</td>
<td>NCCER Certification (Core and Level 1 Carpentry)</td>
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<td>AACC Proficiency Exam (4 transcripted credits)</td>
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<td></td>
<td>Cisco Academy</td>
<td>Cisco Certified Entry Networking Technician Certificate (CCENT)</td>
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<td>Cisco Certified Networking Associate Certificate (CCNA)</td>
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<tr>
<td></td>
<td>Cosmetology</td>
<td>Maryland Department of Labor, Licensing and Regulation State Board of Cosmetologist, Cosmetologist License</td>
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<tr>
<td></td>
<td>Culinary Arts*</td>
<td>ServSafe Certification—National Restaurant Association Educational Foundation</td>
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<td>American Culinary Federation Recognition/Certification</td>
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<td></td>
<td>Electricity</td>
<td>ASE Certification (Core and Level 1 Electricity)</td>
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<td>Apprenticeship Credit Available by review</td>
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<td></td>
<td>Heating, Ventilating &amp; Air Conditioning*</td>
<td>AACC Proficiency Exam (up to 16 transcripted credits)</td>
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<td>MD Department of Labor, Licensing &amp; Regulation HVAC Apprenticeship License</td>
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<td></td>
<td>Welding</td>
<td>NCCER Certification (Core and Level 1 HVAC, EPA Core, CFC)</td>
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<tr>
<td>CAT-North Only</td>
<td>Baking &amp; Pastry*</td>
<td>ServSafe Certification—National Restaurant Association Educational Foundation</td>
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<td></td>
<td>American Culinary Federation Recognition/Certification</td>
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<td>Building Property Maintenance</td>
<td>NCCER Core Certification</td>
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<td>Diesel Power Technology</td>
<td>Student Automotive Service Excellence Certification (ASE)</td>
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<td></td>
<td>Drafting/CAD</td>
<td>Safety and Pollution Prevention Certification (S/P2)</td>
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<td>Environmental Resource Management</td>
<td>AACC Proficiency Portfolio Review (up to 7 transcripted credits)</td>
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<td>Masonry</td>
<td>NCCER Certification (Core and Level 1 Masonry)</td>
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<td>Network Systems Administration</td>
<td>CompTIA A+ Certification</td>
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<td>CompTIA Network + Certification</td>
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<td>AACC Proficiency Exam (up to 10 transcripted credits)</td>
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<td>Plumbing*</td>
<td>NCCER Certification (Core and Level 1 Plumbing)</td>
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<td>Apprenticeship Credit Available by review</td>
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<tr>
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<td>Printing Technology*</td>
<td>PrintED Certifications (Graphic Communication, Digital File Prep, Press Operation)</td>
</tr>
<tr>
<td>CAT-South Only</td>
<td>Dental Assisting</td>
<td>National Board, Radiology, Health, and Safety Certification</td>
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<td>National Board Expanded Function Certification</td>
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<tr>
<td></td>
<td>Interactive Media Production</td>
<td>Adobe Certified Expert (ACE)</td>
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</tbody>
</table>

* Articulation Agreements exist between AACPS and several post-secondary institutions. These agreements allow students to earn college credit for the work completed in high school once they enroll in that institution. However, the Proficiency Credits mentioned above allow students to sit for the equivalent college exam once coursework is completed. This model allows students to earn transcripted college credit while still in high school.
Graduation Certificates

Maryland High School Certificate
This certificate may be awarded to students with disabilities who do not meet the requirements for a diploma but who meet one of the following criteria.

• The student is enrolled in a special education program for at least four years beyond grade 8, or its age equivalent, and is determined by an Individualized Educational Program Team (IEP Team), with agreement of the student’s parents/guardians, to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life. The world of work includes but is not limited to gainful employment, supported employment, or sheltered workshops.

• The student has been enrolled in a special education program for four years beyond grade 8, or its age equivalent, and has reached age 21.

Anne Arundel County Public Schools Citation
An Anne Arundel County Public Schools citation for completion of a four-year high school program may be awarded at graduation ceremonies, if approved by the IEP team, to certain students with specific developmental disabilities who have not completed their individual high school program of studies and will be leaving the high school and entering an alternative AACPS program (i.e. Vocational Citation Program, O-Campus Transition Program). The student will be awarded the Maryland High School Certificate upon completion of the alternative program.

Advanced Placement Diploma Endorsement
Anne Arundel County Public Schools believe that students who engage in rigorous programs should be recognized for their efforts. To provide this recognition, Anne Arundel County Public Schools has developed an AP Diploma Endorsement. In order to earn an AP Diploma Endorsement, a student must:

• Earn a minimum of five AP credits, in four of the five domains:
  – languages
  (English and/or World or Classical Language)
  – social studies
  – mathematics
  – natural sciences
  – computer science and/or fine arts
• Earn a 3.0 un-weighted GPA in AP courses taken (students must earn all A’s and B’s in AP classes taken; those receiving one C are included provided there is at least one offsetting A), and
• Sit for a minimum of 5 AP exams.

Certificate of Merit
Upon graduation, students meeting the following criteria earn the Anne Arundel County Public Schools Certificate of Merit.

• Earn at least a 3.0 cumulative grade point average on a 4.0 scale.
• Earned at least 12 credits in advanced-level courses (Honors, AP or IB).
• Earned at least 3 credits in World and Classical Languages.

Scheduling
It is the responsibility of the student to evaluate carefully and select courses and obtain help from appropriate teachers, school counselors, or administrators. Parental approval of course selection is required for all students younger than 18 years of age. Students have the right to participate in any part of the curriculum in accordance with nondiscriminatory practices.

• Academic credits are defined as courses offered in the program areas of English, mathematics, science, social studies, World and Classical Languages, advanced placement, and computer science.
• The prior approval of the principal is required for a student to take more than four non-academic credits during a school year.
• Students are limited to a maximum of two physical activity classes per semester.
• All high school students have the opportunity to earn up to one elective credit per year in the Alternative Credit Programs.

Courses Outside the Home School
Students may participate in curriculum offerings in any county public school provided that the course is not available at the assigned school, that there is space available in the course, and that the students provide their own transportation. Permission to exercise this option must be obtained from the principals or designees of the affected schools and from the parents or legal guardians. Parental approval for taking courses outside of the home school is not required for students 18 years of age or older.
Students who intend to participate in interscholastic athletics in a Division 1 or Division 2 college or university must register with the NCAA Initial-Eligibility Clearinghouse to determine whether the student is a “qualifier” and can practice, compete, and receive athletic scholarships as a freshman. Students are strongly encouraged to see their counselors to receive more complete information on NCAA eligibility requirements. For more information, see www.ncaa.org or www.eligibilitycenter.org.

What are the NCAA course requirements?
Students enrolling full-time in an NCAA Division 1 or Division 2 college or university must complete 16 core courses (seven before senior year) in the subjects in the table above. Beginning August 1, 2016, NCAA Division 1 will require 10 core courses to be completed prior to the seventh semester (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements). These 10 courses become ‘locked in’ at the start of the seventh semester and cannot be retaken for grade improvement. All other students should check with their counselor for course requirements.

What determines whether or not a student can practice, compete, and receive athletic scholarships as a college freshman?
Division 1 schools use a sliding scale to determine a student’s eligibility. The required SAT or ACT score is based on a student’s GPA (for the 16 required core courses). The higher the student’s GPA, the lower the required SAT or ACT score. However, a student must earn a minimum 2.000 GPA average in order to qualify to practice and receive scholarships. In order to also be eligible to compete, the minimum GPA is 2.300.

Division 2 schools require a student earn a minimum of a 2.000 GPA for the 16 required core courses and earn a specified score on the SAT or ACT in order to be eligible to practice, compete, and receive scholarships.

Which courses qualify?
Courses that are NCAA approved are designated in this list of courses. The approved list of courses changes every spring. Students should work with their school counselor to make sure that the courses they choose are still accepted by the NCAA.

What about ESOL courses?
English as a Second Language (ESOL) courses are not acceptable as NCAA Courses. However, advanced ESOL courses may be used, but must be reviewed on a case-by-case basis. Any student who wishes to have advanced ESOL courses considered when determining his or her initial eligibility must contact the college or university he or she will be attending in order to begin the approval process.

<table>
<thead>
<tr>
<th>NCAA Division I</th>
<th>— 16 Core-Course Rule — Required years of . . .</th>
<th>NCAA Division II</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 English</td>
<td>Mathematics (Algebra 1 or higher)</td>
<td>3</td>
</tr>
<tr>
<td>3 Mathematics</td>
<td>Natural/Physical Science (one year of lab if offered by high school)</td>
<td>2</td>
</tr>
<tr>
<td>2 Social Science</td>
<td>Additional English, Mathematics or Natural/Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>2 English</td>
<td>Additional courses</td>
<td>2</td>
</tr>
<tr>
<td>(from any area above, foreign language or non-doctrinal region/philosophy)</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

AACPS has established standards of academic eligibility for students participating in interscholastic athletics and extracurricular activities. To be eligible to participate, students in grades 9–12 must maintain a C average (a 2.0 weighted grade point average or greater) as determined by existing county grading procedures in the courses taken in a given eligibility period. A student may earn a maximum of one E grade or one U grade in courses taken during that eligibility period. If a student receives two of any combination of E, or U (unsatisfactory), that student is on academic probation.

Course Fees
Please be aware that some courses may have fees attached to them. If these fees would prevent you from taking the course, please see your school counselor for assistance.
Additional Ways to Earn or Recover Credit

In addition to earning credits during the regular school day and year, credits may be earned, at the discretion of the local school system, through various other programs. No student, however, may earn credit more than once for the same course. Additional ways to earn credit include:

Summer School
The secondary summer school program offers students a number of secondary school courses and provides students the opportunity to make up work in which they were unsuccessful, to improve grade averages in sequential subjects, and to earn credits to meet high school graduation requirements. Credit may be given for acceptable summer study offered by approved public and nonpublic institutions in or outside of Maryland, if the principal of the student’s own school authorizes the study in advance.

Evening High School
The Evening High School Program offers students who are currently attending a daytime high school the opportunity to make up credits or take additional courses. For those students, 16 years old or older, who have not completed high school, Evening High School offers an opportunity to complete their high school education and earn a high school diploma.

Twilight School
The Twilight Program is an opportunity for ninth grade students to take a class for remedial credit. The class is taken after school at the comprehensive high school. Twilight School is offered second semester for those students who did not receive credit for a first semester class. Second semester seniors may participate in Twilight School offerings in order to complete necessary credits for graduation.

AACPS Maryland Virtual Learning Opportunities (MLVO) Online Campus
With prior consent of the principal, high school students may enroll in online MVLO courses for high school credit. Courses conducted online with the teacher physically separated from the students expand the range of learning opportunities offered to students for which teachers communicate with students online and via telephone. Students may be scheduled during the school day to work independently on course requirements. The local high school assigns an online support teacher who monitors student progress and communicates with the student, parents, and online teacher as needed. For information, contact your school counseling office. Fees may apply.

Credit by Examination
Credit toward high school graduation may be earned in grades 9–12 by passing an examination that assesses student demonstration of locally established curricular objectives. According to COMAR 13A.03.02.04, students who have completed all requirements for the Maryland High School Diploma except for credit in either English 12 or Algebra 2 may earn credit by exam. To earn credit for English 12, the student must take two tests: SAT and SAT Subject Test in Literature and the writing portion of the SAT with a minimum combined score of 1080 on the SAT Subject Test in Literature with a minimum of 520 on the writing portion of the SAT. To earn graduation credit for Algebra 2 the student must achieve a minimum of 1150 on the American Diploma Project Algebra 2 exam. When selecting this option, please contact interested colleges and universities to review entrance requirements for English 12 and Algebra 2.

Independent Study Programs
Independent Study is an opportunity for the student with strong self-discipline, special talents, and interests to undertake an individual project of exceptional depth, breadth, or pace. The student and the sponsoring teacher design a syllabus to specify outcomes, content, a work plan, and performances for assessment. The program includes regularly scheduled student-teacher conferences and assessments of progress. All sequential coursework in a particular curriculum discipline must have been successfully completed by the student prior to submitting an application for Independent Study. Credit for Independent Study will be assigned on a semester basis and students shall be awarded an unweighted grade of Satisfactory or Unsatisfactory. Guidelines and procedures have been established by the Anne Arundel County Public Schools Office of Curriculum and Instruction. An AACPS common Independent Study application must be completed at the home school and approved by the Coordinator for the subject of the specific course at least two weeks prior to the first day of the requested semester.
Early College Access Program (ECAP)

Anne Arundel County Public Schools and Anne Arundel Community College are joint sponsors of the Early College Access Program (ECAP) which includes Dual Credit and Jump Start programs. ECAP is designed to allow authorized high school students to explore college-level coursework in a variety of academic areas. This college level coursework can complete the academic day for approved high school students who are progressing toward high school graduation and/or provide the opportunity to study subject matter not otherwise available through the traditional secondary school curriculum.

Receiving Credit for ECAP Courses
Designated courses may meet the criteria for both college and high school credit. Prior written consent from the school principal or designee, after advisement with the school counselor, is required. For dual credit courses, students receiving an AACC grade of A, B, C, or D, will receive an AACPS grade of S. An AACC grade of F, FX, or I will receive an AACPS grade of U. On the high school transcript, students are awarded high school credit with the S designation. These courses do not calculate towards a student’s AACPS grade point average.

Costs and Financial Assistance
The cost of participating in ECAP is the responsibility of the student/parent/guardian, as defined by the Career and College Readiness and College Completion Act of 2013.

- Students who are eligible in AACPS for Free and Reduced Meals, are eligible to attend AACC at a reduced cost. Registration, lab, parking, activity, and other miscellaneous fees are the responsibility of the parent/guardian or eligible student.
- All fees must be paid at the time of registration. A separate bill for the tuition will be sent by AACC on behalf of AACPS.
- Qualified ECAP participants may apply for financial assistance through the AACC Financial Aid Office.

ECAP Enrollment Requirements
Student must be at least 16 years old to be approved by the secondary school to participate in ECAP and must demonstrate their academic readiness for specific courses by:

- being enrolled in a minimum of two half credit classes each semester at the high school having senior status with a minimum of 20 credits and in good standing.
- maintaining a 2.0 high school grade point average.
- meeting AACC course prerequisites.
- meeting required acceptable performance levels on the College’s English/Reading and/or Math Accuplacer assessment or nationally recognized standardized test such as the American College Test (ACT) or Scholastic Aptitude Test (SAT).

Students wishing to participate in ECAP must:

- complete the Early College Access Program Application neatly and accurately. (An electronic fillable version of the application is available at www.aacps.org/student-services/earlycollege.pdf.)
- provide their own transportation.
- attend a new student orientation program to become familiar with AACC policies and procedures.

If you have questions, or would like more information, please contact your child’s school counselor. A list of courses eligible for dual credit can be found at www.aacps.org/html/studt/ecap.asp.

Alternatives to 4-Year Enrollment

In recognition of the fact that 4-year enrollment in a public high school may not serve the best interests of some students, the following alternatives shall be made available.

Early Graduation
The student chooses to apply for a waiver of the fourth year of high school and earn a high school diploma by the end of grade 11. All required credits, competency prerequisites, high school assessments, and student service requirements must be met prior to the start of the fourth year of high school and the Regional Assistant Superintendent must determine that the waiver is in the best interest of the student. Students should see the school counselor in the spring of their sophomore year to begin the application process.

Early Admission to an accredited college or vocational, technical or post-high school
The student chooses to be a full-time student at an accredited college or approved vocational, technical, or other post-high school rather than attend a fourth year of high school. The student must have met all state competency prerequisites, high school assessments, and service learning requirements prior to the fourth year. The student must develop a curricular plan which assures that the content of the graduation ‘specified courses’ fulfills the credit requirement and also meets the standards for graduation in the first year of postsecondary study. A written request by the student and parent must be approved by the principal first. Then the student and parent send a letter asking for a waiver of the fourth year attendance requirement for approval by the superintendent of schools or designee, with the curricular plan, early admission acceptance letter, and principal’s approval attached. At the conclusion of
a full year of study, students must submit a written request for the high school diploma to the superintendent or designee together with an official transcript or letter from the post-secondary school indicating that the student has successfully completed a full year of post-high school work.

**Other Programs**

**GED: General Educational Development Testing**
A Maryland High School Diploma may be awarded for satisfactory performance on approved general educational development tests provided that the student meets those requirements as defined in Education Article §7-205, Annotated Code of Maryland and COMAR 13.03.03.01.

**Maryland Adult External High School Diploma**
A Maryland High School Diploma may be awarded for demonstrating competencies in general life skills and individual skills on applied performance tests provided that the student meets those requirements as defined in COMAR 13A.03.03.02.

**Advanced/Co-Curricular Programs**

The Advanced Co-Curricular Programs Office offers a variety of services to students. Some involve outside organizations while others are maintained within the confines of the individual schools or Anne Arundel County Public Schools.

**Adjunct Programs**

Adjunct programs augment the instructional program outside the regular school day. They provide an enriching complement to a student’s regular education experience. Anne Arundel County Public Schools is fortunate to have strong partnerships with organizations in the community that comprise unparalleled resources, including the Naval Academy, the National Security Agency, St. John’s College, and Maryland Hall for the Creative Arts. Here, you will find a brief description of after-school, weekend or summer program options. Participation in these adjunct programs affords students the opportunity to enrich and extend their current program studies. Both student aptitude and interest should be considered when registering for these programs.

**AACPS Scholarship Program for Maryland Hall for the Creative Arts**
Maryland Hall for the Creative Arts in Annapolis offers after-school and Saturday courses in the creative and performing arts. Twenty percent of the enrollment each year is provided tuition-free to students of financial need from Anne Arundel County Public Schools. Sculpting, painting, jewelry design, classical ballet and acting are just some of the classes offered for ages five to seventeen. Scholarship applications and course offering booklets are distributed in schools for fall, winter/spring, and summer sessions.

A course catalog with application form is available through the main office at each school or on-line at the Advanced Co-Curricular Programs Adjunct Web site (www.aacps.org/co-curricular). For further information, contact Maryland Hall for the Creative Arts directly at 410-263-5544 or visit their website.

**United States Naval Academy (USNA) Advanced Studies Program**
The Advanced Study Program is sponsored and funded by the Advanced Co-Curricular Programs Office. Only public school students may attend during the fall and spring semesters of the school year. During the summer session, the program is also open to non-public school students for a fee. The program consists of advanced studies in mathematics, computer applications, humanities, and the sciences for grades six through twelve. In addition to the regular classes, the Advanced Studies Program at the USNA also offers several Saturday morning “hands-on” physics lab demonstrations during the school year. Parents and teachers are welcome to attend with their students.
A course catalog with application form is available through the main office at each school or on-line at the Advanced Co-Curricular Programs Adjunct Web site.

www.aacps.org/cocurricular

St. John’s Seminar
The Office of Advanced Studies and Programs, English and Social Studies Offices, in collaboration with St. John’s College, invites Advanced Placement and Honors classes in English and Social Studies to participate in seminar classes led by St. John’s tutors. Students will also be guests of the college for lunch and a tour of the campus. The instructional format of a Socratic seminar is such that the number of participants must not exceed 20 per seminar and be either all English, all social studies or a mixture of both classes of students.

Topics in the past have included short works, papers, poetry or drama from Shakespeare, Machiavelli, Yeats, Sophocles, or Chaucer, as well as historical works such as the Constitution, the Gettysburg Address and the Federalist’s Papers.

MSDE Maryland Summer Center
The Maryland Summer Center Program, in partnership with public and nonpublic agencies, provides Maryland’s diverse gifted and talented population with advanced rigorous, experiential learning opportunities that nurture these students’ talents and abilities within unique learning environments.

One to three weeks in duration, these residential or non-residential summer courses cover a wide range of interests from computer sciences, to history, to fine arts to STEM.

For further information, contact the MSDE Summer Center at 410-767-4821 or log on to their website.

www.marylandpublicschools.org/summercenters

Activities and Competitions
Co-curricular programs augment the instructional program outside the regular school day. They provide an enriching complement to a student’s regular educational experience. Next, you will find a brief description of before-school, during school, after-school, weekend and/or summer program options for students. Some take place with face-to-face contact while others are on-line requiring remote access. Participation in these activities or competitions affords students the additional opportunities to enrich their current program of studies. Contact your school to obtain specific information and offerings. For more information, visit the program’s website.

AVID Enrichment Club
Students extend the opportunity to apply skills and techniques learned in AVID courses. Enrichment options may be selected.

Continental Math League (CML), Inc. [STEM-related]
The Continental Math League invites students at all grade levels who have above average mental mathematical skills and reading skills. In the Pythagorean or Euclidean Divisions students in grades 4–9 will participate in increasingly difficult meets. Participation will demonstrate progress in the art of problem-solving and analytical reasoning capabilities.

Books covering sample challenging math questions for each grade level and division are available online.

www.continentalmathematicsleague.com

Destination ImagiNation® Grades K–12 [STEM-related]
Each year, five Team Challenges are unveiled to an anxiously awaiting audience of more than 400,000 kids worldwide. The challenges are carefully concocted brainteasers that challenge kids by purposefully stimulating the different senses we use to learn. Teams of up to seven members choose one Team Challenge and spend several months perfecting their solutions. The culmination of the year is a series of Tournaments, where Teams demonstrate their unique solutions to teams of Appraisers. Only AACPS School’s teams who have registered their team(s) through the Advanced Co-Curricular Programs Office may request financial assistance for Global competitions.

www.idodi.org.

Integrated Arts or Fine Arts Club
Students participating in this enrichment club incorporate a variety of fine arts in their extension activity. They explore topics in a project-based, real-world application environment where elements of the visual arts, music, performing arts and dance may co-exist with current technology.

MD (National) History Day
Through the National History Day contest, students in grades 6–12 engage in discovery and interpretation of historical topics related to an annual theme. In the process, they hone their talents and produce creative and scholarly projects in the form of exhibits, documentaries, historical papers, performances, or web site. After a series of district and state contests, the program culminates with a national competition at the University of Maryland in College Park each June.

www.nationalhistoryday.org

MESA — Mathematics, Engineering and Science Achievement [STEM-related]
Maryland MESA is a structured, K–12, pre-college program designed to prepare students for academic and professional careers in mathematics, engineering, science, and technology. MESA is a competition-based club for elementary through high school students, with a focus on underrepresented groups. Students research, plan, and create projects ranging from bridge building to cyber-security to prosthetic arm design. Teachers lead discussions and learning activities which teach skills necessary for success in college.

www.jhuapl.edu/mesa/home/default.asp

Mock Trial
Mock Trial is an activity in which students learn the principles of trial advocacy and then apply those principles as they try a fictitious case. Involvement in Mock Trial fosters increased self-confidence, improved analytical and speaking skills and the ability to work well with others. Students participating in Mock Trial learn how to conduct a trial from start to finish. They are trained in how to plan, draft and present opening statements, direct examinations, cross
examinations and closing arguments. Mock Trial also teaches students how to argue objections intelligently, as well as how to handle various courtroom procedures like entering an exhibit into evidence and impeaching a witness. Aside from the technical aspects of trial advocacy, students learn how to think creatively when dealing with matters of trial strategy.

www.collegemocktrial.org

Model United Nations
Model United Nations is a simulation of the UN General Assembly and other multilateral bodies. In Model UN, students step into the shoes of ambassadors from UN member states to debate current issues on the organization’s agenda. While playing their roles as ambassadors, student “delegates” make speeches, prepare draft resolutions, negotiate with allies and adversaries, resolve conflicts, and navigate the Model UN conference rules of procedure — all in the interest of mobilizing “international cooperation” to resolve problems that affect countries all over the world. By researching, Model UN participants learn how the international community acts on its concerns about topics including peace and security, human rights, the environment, food and hunger, economic development and globalization. Model UN delegates also look closely at the needs, goals and foreign policies of the countries they will represent at the event. The insights they gain from their exploration of history, geography, culture, economics and science contribute to the authenticity of the simulation when the role playing gets under way.

www.unausa.org

On-line Book Club Hybrid
Field in conjunction with the Language Arts/English Department and the AP/College Prep Office, advanced language arts students are invited to participate in an on-line book club during the school year. They will need internet access in order to join a blackboard discussion group. A final project or special culminating activity is designed for each book at each grade level.

Robotics Club or FIRST LEGO League [STEM-related]
The FIRST LEGO League (FLL) is a global program created to introduce students (ages 9–14, up to 16 outside of the U.S. and Canada), to science, technology, and engineering. Students use elements such as sensors, motors, and gears to gain hands-on experience in engineering and computer programming principles as they construct and program their unique robot inventions. The cornerstones of the program are its core values, which emphasize contributions of others, friendly sportsmanship, learning, and community involvement to share their experiences and receive recognition for their efforts.

www.firstlegoleague.org

SEAPerch——Underwater Robotics [STEM-related]
This engineering design course focuses on design, development and building of a underwater remotely operated vehicle (ROV). Students will learn the principles of engineering in a fun-filled project based club environment. Sea Perch Underwater Robotics Competitions will be held locally, regionally, and nationally.

Signature-Based Co-Curricular Clubs
Each of the 12 AACPS high schools has its unique Signature Program. In order to enrich its Signature curriculum area, schools have developed various opportunities for students to enhance the study of their unique programs. For activities specific to your high school, check with the designated signature support person at the high school or contact the AACPS Signature Office.

Stock Market Game
The Stock Market Game gives students the chance to invest a hypothetical $100,000 in a real-time portfolio. As students buy and sell investments in their fantasy portfolios, they make practical use of cross-curricular skills and knowledge in areas such as math, history, civics, and language skills. They learn economic concepts in context, such as the value of investing and saving for the future. AACPS School teams are requested to alert the Co-Curricular Advanced Programs Office of their participation. Several teachers have requested substitute time to attend year end awards ceremonies with their winning teams. Materials, resources and registration are available online.

www.smgww.org

World Language and Culture Club
Students are given an opportunity to learn a new language and culture. Schools that have access to the Rosetta Stone Software are encouraged to use it as part of the club. This club is usually outside of the regular French, Spanish, German or Russian clubs high schools offer and is funded by the ASP office.

Career and Technology Programs
The Career and Technology Education Office offers a variety of career technical student organizations. Some involve outside organizations while others are maintained within the confines of the individual schools or Anne Arundel County Public Schools.

SkillsUSA
SkillsUSA is a partnership of students, teachers and industry representatives working together to ensure America has a skilled workforce that helps each student to excel. SkillsUSA is a national organization serving teachers and high school and college students who are preparing for careers in technical, skilled and service occupations. SkillsUSA programs include local, state and national competitions in which students demonstrate occupational and leadership skills. At the annual national-level SkillsUSA Championships, more than 6,000 students compete in 100 occupational and leadership skill areas. SkillsUSA programs also help to establish industry standards for job skill training in the lab and classroom, and promote community service. SkillsUSA is recognized by the U.S. Department of Education and is cited as a “successful model of employer-driven youth development training program” by the U.S. Department of Labor.

www.skillsusa.org/
DECA
As an integral part of the classroom curriculum, DECA’s industry-validated competitive events are aligned with the National Curriculum Standards in the career clusters of marketing, business management and administration, finance, and hospitality and tourism. DECA’s flagship evaluation process involves students in both a written component such as an exam or report and an interactive component with an industry professional serving as a judge. DECA’s competitive events directly contribute to every student being college and career ready when they graduate from high school.

www.deca.org/

FBLA
Future Business Leaders of America-Phi Beta Lambda is a nonprofit 501(c)(3) education association with a quarter million students preparing for careers in business and business-related fields. Business teachers, advisors, and advisory councils (including school officials, businesspeople, and community representatives) guide local chapters. State advisors and committee members coordinate chapter activities for the national organization. FBLA National Awards Program recognizes and rewards excellence in a broad range of business and career-related areas. Through state-based competition at the spring State Leadership Conferences, students compete in events testing their business knowledge and skills. Top state winners then are eligible to compete for honors at the National Leadership Conference each summer.

fbla-pbl.org/

National ProStart Invitational®
The National ProStart Invitational® is the country’s premier secondary school competition focused on restaurant management and culinary arts. Top ProStart® students from across the globe compete in the event. Talented students showcase their passion and skills in front of nearly 1,000 friends and family, educators and industry leaders. Annually, 350 student competitors put their skills to the test in front of industry leaders, NRAEF Trustees, state restaurant associations, and family and friends - all with hopes of earning a coveted scholarship from one of the nation’s premier culinary and restaurant management programs. The National ProStart Invitational is composed of two distinct competitions—management and culinary—that showcase the most important skills needed on either side of the restaurant and food-service industry. (1) Management teams develop a proposal for the next promising restaurant concept and present it to a panel of industry judges. Next, their problem solving skills are tested as they quickly solve challenges faced by managers daily. (2) The culinary competition highlights each team’s creative abilities through the preparation of a three-course meal in 60 minutes, using only two butane burners, and without access to running water or electricity. There is no room for error as they are evaluated on taste, skill, teamwork, safety and sanitation.

www.nraef.org/ProStart/Invitational

Technology Student Association (TSA)
The Technology Student Association (TSA) is a national organization of students engaged in science, technology, engineering and mathematics (STEM). TSA is supported by educators, parents, and business leaders who believe in the need for a technologically literate society. Members learn through exciting competitive events, leadership opportunities and much more. The diversity of activities makes TSA a positive experience for every student. From engineers to business managers, our alumni credit TSA with a positive influence on their lives. All TSA competitions are correlated with national science, technology, engineering and mathematics standards. Expert judging by technology educators and industry representatives inspires the best from participants. Competitions take place at the local, state, regional and national level. A component of leadership is often entailed in events at both levels, with some events being devoted to leadership (such as the Leadership Challenge).

http://www.tsaweb.org/
Course Descriptions

Course Description

The course description is an overview of the content of the course and may contain additional information, such as student expectations, class assignments, and details about exams and certifications.

Prerequisites: Requirements needed before a student can take this class.

Possible Credits and Class Length

| 0.5sem | A one semester class. A student can earn a maximum of 0.5 credit. |
| 0.5/sem | A class that can be taken for more than one semester. A student can earn 0.5 credit for each semester that the course is taken. |

<table>
<thead>
<tr>
<th>Course ID#</th>
<th>Title of Course</th>
<th>0.5sem</th>
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<thead>
<tr>
<th>SCED Code/State Subject Code</th>
<th>(for internal use)</th>
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<td>12345/1234</td>
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</table>

This course meets the requirements of specific programs:

- **CTE** — Career and Technology Education Program
- **NCAA** — National Collegiate Athletic Association (see page 10)
- **DUAL** — Anne Arundel Community College Dual Enrollment (see page 12)
- **ADVT** — Advanced Technology Course

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Art

The Anne Arundel County High School visual arts program is designed to offer all students personal enrichment as well as provide a high quality, sequential program of studies for students who are planning an art or art-related career. Art courses offer opportunities to learn, explore, and concentrate on the visual art concepts while including activities in all major areas of art. The inquiry-based curriculum fosters the creative potential in each student. Critical thinking and expression of ideas in art forms will help students to appreciate the value of art in meeting 21st Century challenges, relate art to life, social and community issues. All art courses are offered on an elective basis.

Design elements and principles will be stressed along with two- and three-dimensional activities — painting, drawing, printmaking, sculpting, photography, and mixed media — at all levels. Many materials, tools and processes are used to make art so that students will: develop a knowledge of design as the basis for art work; identify design qualities in natural and man-made forms; apply skills while making art objects; judge art qualities; develop a knowledge of how to use materials, tools and techniques; and become familiar with the important role of art in the history of humankind.

Fine Arts Graduation Requirement — 1 Credit

Courses that meet the Fine Arts requirement can be found in the Art, Dance, English and Music program sections.

G19 | Foundations of Studio Art 0.5sem
This course provides the foundation for the visual arts high school program of study. Students will experience a variety of media and processes while exploring two and three dimensional art problems in drawing, painting, printmaking, sculpture and mixed media. Critical and creative thinking skills will be integrated into all studio experiences.
05154/0100

G30 | Drawing for Fashion 1 0.5sem
The course will prepare students for further study in the area of fashion design, fashion illustration, textile design, and marketing while developing an understanding of the connection between design and drawing. Students will produce individual sketchbooks/breadth of their media experience, design concepts related to fashion design, and their growth in the drawing of the human figure. Students will be exposed to varied aspects of the fashion industry, including fashion design and related career opportunities.
Recommended: Foundations of Studio Art
05156/0100

G31 | Drawing for Fashion 2 0.5sem
The student will explore more advanced aspects of fashion illustration, fashion design, textile design, and marketing using visual arts media. Students will expand development of sketchbooks and portfolios related to fashion design and the drawing of the human figure. The resulting portfolio will show evidence of personal development through studio work, outside experiences, and sketchbook/journals. Students will be encouraged to make artistic choices that have been influenced by outstanding fashion designers leading to an individual style based on personal aesthetic criteria.
Prerequisites: Drawing for Fashion 1
05156/0100

G35 | Photo & Digital Processes 1 0.5sem
Photography and Digital Processes 1 is the introductory class for the study of photographic processes. Use of the digital camera/device and/or analog camera and the manipulation of student generated images on the computer will serve as a basis for exploring various media. The class is structured around creating photographic or digital imaging emphasizing visual arts principles. It will introduce the student to the principles of contemporary media as a verbal and visual means of communication in today’s society. Students will be challenged to solve art problems by studying the work of master photographers and digital artists. A sketchbook/journal will serve as a resource for technical information, processes, idea generation, and written commentary.
Prerequisites: Foundations of Studio Art
05162/0100

G36 | Photo & Digital Processes 2 0.5/sem
Photography and Digital Processes 2 courses builds upon skills, concepts, and techniques developed in Photography and Digital Processes 1. Through experimentation, observation, and teacher direction, students will be challenged to create expressive works influenced by master contemporary photographers, digital artists, and other career connections. Students will expand their repertoire of software, styles, and techniques. Student’s original photographs serve as a source of ideas. All digital imaging should come from student generated artwork/photos or family archival photographs. Further exploration of the Adobe Creative Suite is part of the photographic process of the course. The curriculum is aligned with the MD State Dept. of Education Essential Learner Outcomes while embedding 21st century skills.
05162/0100

G37 | Honors Photo & Digital Processes 3 0.5/sem
Photography and Digital Processes 3 builds upon skills, concepts, and techniques developed in Photography and Digital Processes 2. Students will solve different kinds of non-familiar problems in both conventional and innovative ways. Students will maintain a portfolio to include a concentration, and depth and breadth sections. Emphasis is placed on developing a personal vision and voice in their work. Students will continue to expand their repertoire of software, styles, and techniques as well as exploring other digital imaging devices. The curriculum is directly aligned with the MD State Dept. of Education Essential Learner Outcomes while embedding 21st century skills. Students will develop and demonstrate knowledge of content specific, academically based, and cross-curricular vocabulary and themes.
05162/0100

G45 | Studio 1: 2D Art 0.5sem
This course is the introductory course to two dimensional art processes: drawing, painting, printmaking, crafts and mixed-media. Students will be challenged to develop a personal style by creating expressive works of art based on a variety of artists, art movements, and techniques. A process portfolio and sketchbooks/journals will reflect personal aesthetic choices in the development of a body of work.
Prerequisites: Foundations of Studio Art
05155/0100
This course is the introductory course to three dimensional art processes. The emphasis of this course is on developing a body of related two-dimensional works (drawing, painting, printmaking, crafts, mixed media), based on a personal idea or theme. The resulting portfolio will show evidence of personal development through studio work, influences by master artists, outside experiences and sketchbook/journals.

Prerequisites: Studio 1: 2D Art

G46 | Studio 2: 2D Art 0.5sem
In this course students will solve problems that focus on ways to approach two dimensional design. Activities will include painting and drawing from life, ways to represent the human figure from observation, portraiture, printmaking on and off the press and contemporary crafts. Emphasis is placed on creative problem solving, use of the sketchbook/journal and the influence of master artists and cultural exemplars.

Prerequisites: Studio 1: 2D Art

G47 | Honors Studio 3: 2D Art 0.5/sem
The emphasis of this course is on developing a body of related two-dimensional works (drawing, painting, printmaking, crafts, mixed media), based on a personal idea or theme. The resulting portfolio will show evidence of personal development through studio work, influences by master artists, outside experiences and sketchbook/journals.

G55 | Studio 1: 3D Art 0.5sem
This course is the introductory course to three dimensional art processes: ceramics, sculpture, crafts and mixed-media. Through experimentation, observation and teacher direction, the student will be challenged to develop a personal style by creating expressive works of art based on a variety of artists, art movements and techniques. A process portfolio and sketchbooks/journals will reflect personal aesthetic choices in the development of a body of work.

G56 | Studio 2: 3D Art 0.5sem
In this course students will solve problems and focus on three-dimensional art forms. Design solutions are explored in sculpture, contemporary crafts and ceramics in traditional and non-traditional ways. The sketchbook/journal issued for recording ideas, influences from master artists and cultural exemplars, working out solutions to problems, and reflecting on results.

G57 | Honors Studio 3: 3D Art 0.5/sem
The emphasis of this course is on developing a body of related three-dimensional works (ceramics, sculpture, crafts, mixed media) based on a personal idea or theme. The resulting portfolio will show evidence of personal development through studio work, outside experiences and sketchbook/journals. Students will be encouraged to make artistic choices that have been influenced by master artists leading to an individual style based on personal aesthetic criteria.

Prerequisites: Studio 2: 3D Art

G61 | AP Studio Drawing 0.5/sem
The AP Studio Art Program is designed for highly motivated students who are seriously interested in the study of art. Portfolios will be developed that demonstrate a concentration, breadth and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

G62 | AP Art History 0.5/sem
This college level course involves the study of art history from prehistoric times to the present day. The content of the course will allow students to be able to analyze elements of artwork, become familiar with media and techniques or art production and the ability to recognize and identify periods and styles. Additionally, analytical comparative essays will explore themes, styles and purposes of art. This course culminates in the Advanced Placement Art History test to earn college credit.

G63 | Honors Art Portfolio Development & Studio Practices 0.5/sem
This course is designed for students who have received continuous instruction in visual arts. This course offers a creative environment which is structured to facilitate students as they continue working in the arts and are preparing to enter colleges and art schools. Through the assembly of a portfolio, students examine a body of work created through creative problem solving that includes personal aesthetic choices and variety of media. Students’ analysis skills are developed through critiques, as they articulate the aesthetic characteristics and meaning of personal, peer, and master artworks.

G67 | Department Aide—Art No credit
Fine and Performing Arts Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.

G68 | AP Studio Art 3D Design 0.5/sem
Students in this course develop their 3-D Design Portfolio according to the requirements of the College Board’s Advanced Placement Program. Portfolios will be developed that demonstrate a concentration, breadth and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

G69 | AP Studio Art 4D Design 0.5/sem
Students in this course develop their 4-D Design Portfolio according to the requirements of the College Board’s Advanced Placement Program. Portfolios will be developed that demonstrate a concentration, breadth and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

G70 | AP Art Seminar 0.5/sem
Seminar: AP Art Seminar is designed for highly motivated students who are seriously interested in the study of art. Portfolios will be developed that demonstrate a concentration, breadth and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.
Career and Technology Education courses are designed to provide challenging opportunities for students to develop knowledge and skills in a career field. Students may use this acquired knowledge for entry-level employment and/or further education at a college, technical or business school, or an apprenticeship program. The courses are offered at the high schools and at the Centers of Applied Technology.

For information about the Centers of Applied Technology, see pages 64 and 85.

### Business

Business Education offers students an opportunity to explore real world problems and challenges that exist globally, and develop cross-curriculum skills through team-based and independent work. Subject matter may include accounting, business management, entrepreneurship, finance, international business, information technology and interactive media production. These courses prepare students for further education and encourage internships. Many of the Business Career Completers offer proficiency credits allowing students to earn college credit.

#### Q01 | Accounting 1  
0.5/sem

Students are introduced to accounting through manual and computer processes in the basic accounting cycle, including accounting for payroll, merchandising, special procedures, and partnerships. Excel spreadsheets, internet connection activities, and/or accounting software with QuickBooks are used to reinforce learned concepts.

**Prerequisites:** Accounting 1

**CTE DUAL 12104/0203**

#### Q02 | Honors Accounting 2  
0.5/sem

Students apply accounting methods to partnerships and corporations. QuickBooks software and simulations are included for students to apply accounting principles and procedures. Students taking this course are eligible to participate in a paid or unpaid internship.

Prerequisites: Accounting 1

**CTE 12141/0203**

#### Q03 | Honors Accounting 3  
0.5/sem

This is an advanced course using a college textbook. This course builds on skills acquired in Accounting 2. Students use manual and computerized (QuickBooks) accounting methods to practice and apply accounting skills and competencies to business activities.

Prerequisites: Accounting 2

**CTE 12142/0203**

#### Q11 | Personal Law  
0.5sem

This course examines the legal relationship between principals and their agents, the competing interests of creditors and debtors, the forms of business organization, the legal consequences of marriage and divorce, the transfer of real property, the principal types of insurance, and the main features of retirement plans and estate planning.

**04163/1704**

#### Q12 | Business Law  
0.5sem

This course provides coverage of legal topics including the sources of law, the judicial system, criminal law, civil (tort) law, the formation and performance of contracts, the Uniform Commercial Code (sales transactions), competing interests of buyers and sellers (consumer law), and the ownership and transfer of personal property. Current issues such as ethics, workplace issues, and computer crime are discussed.

**DUAL 04164/1704**

#### Q20 | Principles of Business Administration & Management A  
0.5sem

Students will study the organization of business, applications of business laws and theory, historical perspectives on business, business terminology, management functions and career pathways in business.

Recommended: Introduction to Microsoft® Office

**CTE DUAL 12001/0203**

#### Q21 | Principles of Business Administration & Management B  
0.5sem

Students will study communication in the workplace, networking skills, human diversity, employee recruitment and retention skills, interviewing skills, time management skills and workplace ethics.

Recommended: Introduction to Microsoft® Office

**CTE DUAL 12001/0203**

#### Q22 | Career Research & Development  
0.5/sem

This course includes project-based challenges encountered on the job as well as consumer education as it applies to students. Seniors selecting this course must successfully complete an internship to fulfill the program requirements.

**CTE DUAL 22161/0203**

#### Q70 | Professional Career Experience  
1.0/sem

Experiences in careers are an important element of the development process. This course is not the same as a short-term job; it has structured learning goals, provided supervision and offers an experiential learning component that can strengthen a resume. Career Experiences can expand knowledge of oneself and provide students with insight to the career fields that interest them. Students will also gain marketable skills related to the field and make important contacts. This course allows students to apply classroom knowledge in the workplace. A minimum of 135 hours required.

Prerequisites: Teacher recommendation and approval from Internship Coach. Student must provide their own transportation.

**22163/0204**
Students will develop marketing plans by analyzing customer needs and the market environment. They will learn advertising and promotion planning, as well as how to distribute products and conduct marketing research. Managerial skills will be acquired and implemented, in many cases through the operation of a school store. Marketing students will also acquire valuable leadership skills through their participation in DECA.

**Recommended for Completers:** *Introduction to Microsoft® Office*

**CTE DUAL 10153/0300**

**Q53 | Honors Visual Basic 1**

Students will learn the basics of programming including variables, constants, selection and repetition structures. There is an emphasis on the actual development of the code that is basic to the language.

**Prerequisites:** Algebra 1.

**CTE DUAL 10153/0300**

**Q54 | Honors Visual Basic 2**

Students will learn advanced concepts of programming including sequential and random access files, dialog boxes, database access and advanced applications.

**Prerequisites:** *Honors Visual Basic 1*

**Q51 | Honors Business Management**

This course includes a broad view of business objectives. It specifically emphasizes phases of organizing, financing, establishing, operating and managing a business. Management simulations and internet research activities are incorporated into this class.

**CTE DUAL 12055/0203**

**Q62 | Honors Legal Studies**

This course presents an overview of law and the legal environment. The areas covered include: careers, ethics, regulation, pretrial preparation, trial procedures, criminal law, administrative law, legal interviewing, the use of computers in legal work, and legal research and writing. Students will deal with text, cases, videotapes, scenarios, and practical situations concerning the law.

**Prerequisites:** *Personal Law and Business Law*

**Q63 | Business Finance Software**

This course enables students to use software as they make informed financial decisions both personally and in the business world. They will participate in the National Financial Literacy Challenge at the end of the course.

**CTE 02155/1200**

**Q64 | Microsoft® Office Applications (xls/dbf)**

In this course students will develop advanced skills using spreadsheets and database software. Using Microsoft® Office Excel and Access, students will acquire skills that will prepare them for future academic and workforce opportunities. The course will provide Microsoft® Office Specialist (MOS) certification opportunities which provide industry-leading assessments of skills and knowledge.

**Prerequisites:** *Introduction to Microsoft® Office*

**CTE 10004/0300**

**Q71 | Microsoft® Office Applications (doc/ppt)**

In this course students will develop advanced document, word processing and presentation skills. Using Microsoft® Office Word and PowerPoint, students will acquire skills that will prepare them for future academic and workforce opportunities. The course will provide Microsoft® Office Specialist (MOS) certification opportunities which provide industry-leading assessments of skills and knowledge.

**Prerequisites:** *Introduction to Microsoft® Office*

**CTE 10004/0300**
**Computer Science**

Students interested in careers in computer science, the sciences and engineering, or interested in studying programming languages, should consider enrolling in one or more of the computer science programming courses. Students interested in taking Computer Science courses are encouraged to start with a semester of Visual Basic followed by a semester of Java Programming. College level computer science courses include AP Computer Science A followed by the Computer Science Data Structures course. Students also have an opportunity to achieve Oracle Certified Associate (OCA) status by taking Database Design and Programming along with the Database Application Development classes and passing the associated certification exams.

**R05 | Computer Science Publishing** 0.5sem

This course will focus on the use of computers for desktop publishing. Students will learn basic design principles and gain experience in the use of programs such as Publisher, or InDesign. Students create printed materials such as flyers, newsletters, pamphlets, brochures, magazines, booklets, and newspapers.

Recommended: Proficiency in word processing

**R06 | Foundations of Computer Science** 0.5sem

This course is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Rather than focusing the entire course on learning particular software tools or programming languages, the course is designed to focus the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. This course includes a broad range of topics in computing, including robotics; programming in several languages such as Processing and Java; and cyber security. Available at Chesapeake and Meade high schools only.

**R04 | AP Computer Science Principles** 0.5sem

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to creative aspects of programming, using abstractions and algorithms, working with large data sets, understandings of the Internet and issues of cybersecurity, and impacts of computing that affect different populations. AP Computer Science Principles will give students the opportunity to use current technologies to solve problems and create meaningful computational artifacts. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Available at Chesapeake, Meade, North County and South River high schools only.

**R10 | Honors Database Design/Programming (SQL)** 0.5sem

This course lays the foundation for students understanding relational databases and designs. Students become proficient business analysts and experts in structured query language (SQL). This course prepares students for the Introduction to Oracle 9i-SQL Certification Exam.

Prerequisites: Visual Basic and acceptance into the Oracle Academy.

CTE 10062/0300

**R11 | Honors Database Application Development (PL/SQL)** 0.5sem

Students create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Students develop online database applications using an online development environment (HTML-DB). Students who successfully pass this and the previous (SQL) certification exams achieve Oracle Certified Associate (OCA) status.

Prerequisites: Honors Database Design/Programming (SQL)

CTE 10062/0300

**R18 | Honors Computer Science Programming—Java** 0.5sem

This rigorous programming course is an introduction to the object-oriented computer language Java. Algorithm analysis and steps in designing, implementing, testing and maintaining a program will be emphasized. It is highly recommended this course be taken before taking an AP level programming course and preferably taken in the spring semester just preceding the AP Computer Science Programming course.

Prerequisites: Algebra 1 and Geometry (C or better in both)

CTE DUAL 10155/0300

**Q77 | Web Page Design** 0.5sem

Students will create and edit a web page, create a web site with links, tables, image maps, frames, and forms. Programming will be taught using Web-based tools such as HTML, and JavaScript.

Recommended: Introduction to Microsoft® Office

DUAL 10201/0300

**Q78 | Advanced Web Page Design 1** 0.5sem

Students will work with programs such as Adobe Design Premium CS4, which includes DreamWeaver, Flash, Fireworks and Illustrator, to develop more complex web pages and web sites.

Prerequisites: Web Page Design

CTE DUAL 10201/0300

**Q79 | Honors Advanced Web Page Design 2** 0.5sem

Students will continue web design development concentrating on Flash and topics such as Javascripting and web site management.

Prerequisites: Advanced Web Page Design 1

CTE 10201/0300

**Q87 | Department Aide—Business** No credit

Business Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.

10995/2000

**X12 | AP Capstone Seminar** 0.5sem

The Advanced Placement (AP) Capstone is built on the foundation of two new AP courses — AP Seminar and AP Research. It is designed to complement and enhance the in-depth, discipline-specific study provided through other AP courses. The AP Capstone curriculum fosters inquiry, research, collaboration, and writing skills through the intensive...
FAMILY AND CONSUMER SCIENCES

Family and Consumer Sciences courses prepare students for the work required in family life and careers based on family and consumer sciences skills. All courses are part of the elective offerings and are open to all students.

Courses that prepare students for careers fall into one of the following categories:

1. Required courses that are part of a prescribed sequence for a career completer program
2. Elective courses that are highly recommended as part of various career completer programs

**H10 | Honors Art/Science of Nutrition—A** 0.5sem

Students will study the science of nutrition as it relates to individual food choices that maximize healthy behaviors for a lifetime. Topics include food safety and sanitation, the digestion process, the macro nutrients and MyPlate. Students will understand the concepts they are learning in their classroom lessons while perfecting skills in the art of producing nutritious, appealing recipes. Practical lessons will involve lab work. Students who successfully complete the Art/Science of Nutrition A & B and pass the final exam with at least a C may earn articulated credit in the Dietetics Program while enrolled at the University of Maryland Eastern Shore. Lab fee charged.

**H11 | Honors Art/Science of Nutrition—B** 0.5sem

Students continue to build on the skills and healthy food preparation techniques developed in Art/Science of Nutrition A. Topics include the remaining micronutrient components of food along with obesity, eating disorders, wellness throughout the life cycle and prevention of chronic diseases. Issues facing society will include food safety, technology, use of supplements and botanicals. Emphasis is placed on dispelling common nutrition myths and on questioning nutrition information presented in the media. Students will understand the concepts they are learning in their classroom lessons while perfecting skills in the art of producing delicious, nutritious recipes. Practical lessons will involve lab work. Students who successfully complete the Art/Science of Nutrition A & B and pass the final exam with at least a C may earn articulated credit in the Dietetics Program while enrolled at the University of Maryland Eastern Shore. Lab Fee charged.

**H15 | Creative Fashion Technology A/B** 0.5sem

Creative Fashion Technology A/B is designed for students to develop their own personal creativity using digital and graphic resources. Students will learn the skills and techniques in fashion design technology while extending their creativity. Students will understand the role of technology in the fashion design industry along with the technological skills required to compete in the design room and in the marketplace. Students will learn and utilize the software application, Adobe Photoshop as it functions in the fashion design industry.

**H20 | Child Development 1** 0.5sem

Learn about children ages three to six and work with preschoolers in the lab. Study the stages of growth and development, the role of play in children's learning, and positive guidance practices and techniques.
This course introduces students to the intermediate techniques associated with fashion design and the principles of clothing construction and accessories. Individualized projects will be used to further develop the students skills. Lab fee charged. Articulation with Stevenson University is available.

Prerequisites: Fashion Design 1

H61 | Business of Fashion A 0.5sem

Explore the history and scope of the fashion industry, including buying and selling, fashion cycles and fashion coordination. Students will also have the opportunity to form a fashion company.

12153/0203

H62 | Business of Fashion B 0.5sem

The Business of Fashion B builds on the information and skills introduced in Business of Fashion A. Students will have the opportunity to learn how to start an online fashion business.

Prerequisites: Business of Fashion A

12153/0203

H73 | Nutrition Science 0.5sem

Students learn the science of nutrition and the relationship of nutrition to health and disease. Students apply the principles of biology and chemistry to their learning. Lab fee charged.

Prerequisites: Biology

DUAL 22203/0206

H77 | Honors Culinary, Hospitality Management 1 0.5/sem

This course is a continuation of level 1 with more in-depth skills and knowledge of the Food Service and Hospitality profession. Students will be introduced to many of the behind the scenes activities necessary for a professional and successful Food Service and Hospitality establishment. Preps students for ProStart certification. Lab fee charged. ProStart Certificate of Merit test fee.

Prerequisites: Honors Art/Science of Nutrition A, or Nutrition Science (C or better)

CTE DUAL 16065/0206

H74 | ProStart WBL 1.0/sem

Seniors who have completed the required courses Honors Culinary Skills & Hospitality Management 1 and 2 must complete one of the following:

- 400 hour internship for ProStart Certification
- 270 hours work-based learning for AACPS completer, or
- 400 hour internship for ProStart Certification.

Students seeking an internship experience must have excellent attendance and the recommendation of the ProStart teacher.

Prerequisites: Culinary Skills & Hospitality Management 1 & 2 ProStart Completer

CTE 16066/0206

H80 | Your Finances 0.5sem

Students will study the importance of personal financial preparedness. Students will be able to make decisions on managing their money, banking, credit and taxes. Students will apply their knowledge and develop a plan for attaining goals while juggling multiple roles as a young adult.

Recommended: Grades 10–12

22210/0206

H81 | Introduction to Teaching Profession 0.5/sem

This career course is designed to introduce students to the Teaching Profession. Students will be introduced to teaching strategies, human growth and development and technology in the classroom. Students will have a variety of internship opportunities at different grade levels.

CTE DUAL 19152/0206

H87 | Department Aide—FACS No credit

Family and Consumer Science Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.

22245/2000
Technology education is an applied education program that relies on project-based learning to prepare students to be technologically literate. Through participation in “hands-on” experiences in various technical environments students will see the connection that exists between technology, math, science, and engineering concepts. They will also utilize the design process to effectively solve “real-world” problems. Technology education courses are both required and elective. One basic technology education credit is required for graduation. The program is composed of introductory courses and advanced courses. Some courses are only offered at specific high schools. Students can become eligible to receive college credits upon successful completion of required coursework in the Technology Education program.

### Advanced Technology Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>M09</td>
<td>Advanced Technology Systems</td>
<td>0.5/sem</td>
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<tr>
<td>M10</td>
<td>Communication Technology 1</td>
<td>0.5sem</td>
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<tr>
<td>M11</td>
<td>Communication Technology 2</td>
<td>0.5sem</td>
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<tr>
<td>M13</td>
<td>Technology Design 1</td>
<td>0.5sem</td>
</tr>
<tr>
<td>M14</td>
<td>Technology Design 2</td>
<td>0.5sem</td>
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<tr>
<td>M16</td>
<td>Introduction to Robotics</td>
<td>0.5sem</td>
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<tr>
<td>M18</td>
<td>Power/Energy/Transportation</td>
<td>0.5sem</td>
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<tr>
<td>M20</td>
<td>Engineering Drawing/CAD 1</td>
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<td>M21</td>
<td>Engineering Drawing/CAD 2</td>
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<tr>
<td>M22</td>
<td>Architect Design/Development 1</td>
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<td>M23</td>
<td>Architect Design/Development 2</td>
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<td>M32</td>
<td>Technology of Flight</td>
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<tr>
<td>M42</td>
<td>Manufacturing &amp; Construction Technology</td>
<td>0.5sem</td>
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<tr>
<td>M52</td>
<td>Marine Technology</td>
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#### M09: Advanced Technology Systems (0.5/sem)
This course is intended to provide in-depth experience with a variety of technology areas. Students gain insight into engineering related careers as they learn the basics of electronics and robotics. Students learn to apply principles of physics, mathematics, and computational science to solve technological problems through hands-on experimentation and simulation.

**Prerequisites:**
- Foundations of Technology A & B
- or Honors Principles of Engineering

**ADVT 21003/0207**

#### M10: Communication Technology 1 (0.5sem)
This course develops skills and knowledge in the use of information and communication technology. Course topics include: graphic arts design, screen printing, digital photography, corporate & desktop publishing, media production, computer graphics & imaging.

**Prerequisites:**
- Foundations of Technology A & B
- or Honors Principles of Engineering

**ADVT 21001/0207**

#### M11: Communication Technology 2 (0.5sem)
This course focuses on more advanced communication technology by building upon what was learned in CT 1 to refine and enhance a variety of technical communication skills. Skills and understandings developed in CT 1 will be expanded to incorporate still/video camera equipment as well as systems, processes and other devices used in the telecommunications industry.

**Prerequisites:**
- Communications Technology 1

**ADVT 11001/0207**

#### M13: Technology Design 1 (0.5sem)
Students experience exciting activities in the areas of entertainment, recreation and information technologies. Students work in engineering teams to apply technology, science, and mathematics concepts and skills to solve design problems and create innovative designs. Students will use criteria such as design effectiveness, public safety, and ethics to evaluate their designs.

**Prerequisites:**
- Foundations of Technology A & B
- or Honors Principles of Engineering

**ADVT 21003/0207**

#### M14: Technology Design 2 (0.5sem)
This course provides the student with the opportunity to use the engineering design process to solve complex issues in the areas of medical and biotechnology fields. Working in teams, students will identify the problem, engineer a solution and report findings. The activities allow students to choose their place on an engineering team and contribute their talents to accomplish the ultimate goal.

**Prerequisites:**
- Technological Design 1

**ADVT 21003/0207**

#### M16: Introduction to Robotics (0.5sem)
The objective of this course is to use a hands-on approach to introduce the basic concepts in robotics, focusing on robots and illustrations of current state of the art research and applications. Course information will be tied to lab experiments; students will work in teams to build and test increasingly more complex VEX-based robots, culminating in an end of semester robot contest. This course introduces fundamental concepts in robotics. In this course, basic concepts will be discussed, including sensors, path planning, kinematics, feedback, stressing the importance of integrating sensors, effectors, and control.

**ADVT 21009/0207**

#### M18: Power/Energy/Transportation (0.5sem)
This course develops a depth of understanding about a wide array of energy sources and controls by engaging students in hands-on, project-based activities in mechanical power, fluid power, and electrical power. Students will construct and test a variety of transportation systems, participate in reverse engineering activities, and developing skill working with the tools, equipment, and measurement devices used by engineers and technologists.

**Prerequisites:**
- Foundations of Technology A & B
- or Honors Principles of Engineering

**ADVT 21010/0207**
This course provides students with an opportunity to develop skill in the language of engineering. Students will create drawings by both traditional board drawing and computer aided design software. Instrument usage, measurement & computational accuracy, visualization & perception, problem solving and technical communication skills will be developed.

Prerequisites: Foundations of Technology A & B
or Honors Principles of Engineering

CTE DUAL ADVT 21006/0207

M21 | Engineering Drawing/CAD 2 0.5sem

This course is intended to continue the development of the student's competencies in the language of engineering but with an increased emphasis on developing an in-depth understanding of specialty topics such as auxiliary representation, intersections & development, threads & fasteners, assembly drawing, charts, graphs & diagrams. Although instrument drawing will continue, increased understanding of CAD operations & techniques will be developed.

Prerequisites: Engineering Drawing/CAD 1

CTE ADVT 21006/0207

M22 | Architect Design/Development 1 0.5sem

This course provides students with an opportunity to develop skill in the preparation of architectural drawings using traditional technical drawing equipment as well as computer aided design (CAD) applications such as ArchiCad and Google SketchUp. This course is an advanced level course for those students that are interested in a technology-based career path such as civil engineering, architecture, construction, construction supervision, and technical design.

Prerequisites: Foundations of Technology A&B
or Honors Principles of Engineering

Recommended: Engineering Drawing/CAD 1

DUAL ADVT 21011/0207

M23 | Architect Design/Development 2 0.5sem

This course is intended to continue the development of competencies learned in level 1 while refining and enhancing their drawing skills through continued practice and more rigorous experiences with CAD software and content-specific to detail drawing, pictorial rendering, and model building. Students that complete Engineering Drawing/CAD & Design 1 & 2 and complete Architect Design/Development 1 & 2 with at least a B average may qualify to receive Anne Arundel Community College credit.

Prerequisites: Architect Design/Development 1

DUAL 21011/0207

M25 | Honors Principles of Engineering 0.5/sem

This course provides an overview of engineering and engineering technology and includes the development of problem-solving skills used to solve real-world engineering problems. The course of study includes: Overview & Perspective of Engineering, Design Process, Communication & Documentation, Engineering Systems & Manufacturing Processes, Materials & Materials Testing, Thermodynamics, Engineering for Quality & Reliability, and Dynamics. Glen Burnie, Meade, Severna Park and South River High Schools only.

CTE 21024/0207

M26 | Honors Engineering Design 0.5/sem

This course is part of the PLTW pre-engineering program of study and is a course that develops student's problem-solving skills, with emphasis on visualization and communication skills using AutoCAD Inventor 3-D solid modeling software. Units of study include: Introduction to Design, Student Portfolio Development, Sketching & Visualization, Geometric Relationships, Modeling, Assembly Modeling, Model Analysis & Verification, Model Documentation, Presentation, Production, and Marketing. Glen Burnie, Meade, Severna Park and South River High Schools only.

Prerequisites: Honors Principles of Engineering

CTE 21026/0207

M27 | Honors Digital Electronics 0.5/sem

This course is the third course of a pre-engineering co-curricular program known as Project Lead the Way. In this course, students investigate topics in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. Glen Burnie, Meade, Severna Park and South River High Schools only.

Prerequisites: Honors Principles of Engineering

CTE 21028/0207

M28 | Honors Computer Integrated Manufacturing 0.5/sem

This is a Project Lead the Way (PLTW) course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Honors Engineering Design. Students use CNC equipment to produce actual models for their three-dimensional designs. Meade High School only.

Prerequisites: Honors Principles of Engineering, Honors Engineering Design, and Honors Digital Electronics

CTE 21030/0207

M29 | Honors Environmental Sustainability 0.5/sem

Students in this course investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply issues, and renewable energy. Applying their knowledge through hands-on activities and simulations, students research and design potential solutions to these true-to-life challenges.

Prerequisites: Honors Principles of Engineering
and Honors Engineering Design

21014/0207

M30 | Honors Aerospace Engineering 0.5/sem

This is a Project Lead the Way (PLTW) course that will introduce students to the world of aeronautics, flight, and engineering. Students will apply scientific and engineering concepts to design materials and processes that directly measure, repair, improve, and extend systems in different environments. The curriculum sequence includes experiences from the diverse fields of Aeronautics, Aerospace Engineering and related areas of study such as aerospace information systems, star sailing or astronautics rocketry, propulsion, and the physics of space science, space life sciences (BioSpace), principles of aeronautics, structures and materials, and systems engineering. Meade, Severna Park, and South River High Schools only.

Prerequisites: Honors Principles of Engineering

and Honors Engineering Design

Recommended: Algebra 2

CTE 21033/0207
This course provides the student with a study of the core technologies used in the aviation and aerospace enterprise. Students will follow the engineering design process to design, build, and test a number of aircraft and rockets.

Prerequisites: Foundations of Technology A & B or Honors Principles of Engineering

M42 | Manufacturing & Construction Technology 0.5sem
This course focuses on hands-on, problem-based activities to introduce manufacturing and construction concepts related to the Standards for Technological Literacy. During each Learning Unit, students are asked to use a four-phase learning cycle to develop plausible solutions to related Primary Challenges. Designing a Custom Family Home for a Client is one example of a Primary Challenge experienced in this course.

Recommended: Foundations of Technology A & B or Honors Principles of Engineering

M44 | Honors Engineering Design & Development 0.5/sem
Students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year. Glen Burnie, Meade, Severna Park and South River High Schools only.

Prerequisites: Honors Principles of Engineering, Honors Engineering Design, and Honors Digital Electronics

M49 | Honors Civil Engineering & Architecture 0.5/sem
Students apply what they learn about various aspects of civil engineering and architecture to the design and development of a property. Working in teams, students explore hands-on activities and projects to learn the characteristics of civil engineering and architecture. In addition, students use 3D design software to help them design solutions to solve major course projects. Students learn about documenting their project, solving problems and communicating their solutions to their peers and members of the professional community of civil engineering and architecture. This course is designed for 11th or 12th grade students.

Prerequisites: Honors Principles of Engineering and Honors Engineering Design

M52 | Marine Technology 0.5sem
This course provides the student with an in-depth study of the core technologies while investigating topics that include: Historical Perspective, Design, Hydrodynamics, Hydrostatics, Propulsion Systems, Materials, Electronics, Navigation Systems, and Careers. Students will experience the engineering design process as they design, construct, test, and analyze a propeller-driven watercraft. Both computer simulations and hands-on experiences are an integral part of this course.

Prerequisites: Foundations of Technology A & B or Honors Principles of Engineering

M69 | Foundations of Technology A 0.5sem
This section of the course explores the history of technology and its impacts. It helps students develop an understanding of the relationships among technologies and the connections with other fields of study. The engineering design process is also applied to effectively solve various problems by systematic means.

M70 | Foundations of Technology B 0.5sem
This section of the course teaches students how to use systems thinking to research, examine data, evaluate inferences, and make predictions about technologies in the areas of communications, manufacturing, and construction.

Prerequisites: Foundations of Technology A

M35 | Honors Principles of Biomedical Science 0.5sem
This course provides an introduction to the biomedical sciences through exciting hands-on projects and problems. Student work involves the study of human medicine, research processes and an introduction to bio-informatics. Key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including: the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate. Glen Burnie High School only.

Prerequisites: Honors Principles of Engineering

M36 | Honors Human Body Systems 0.5sem
This course will engage students in the study of basic human physiology, especially in relationship to human health. Students will use a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Glen Burnie High School only.

Prerequisites: Honors Principles of Biomedical Sciences

M37 | Honors Medical Interventions 0.5sem
This course will engage students in the study of basic human physiology, especially in relationship to human health. Students will use a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Glen Burnie High School only.

Prerequisites: Honors Principles of Biomedical Sciences

TBD | Introduction to Construction Design and Management 0.5/sem
This course provides an overview of the design and construction process as well as an introduction to the many career options within the field of construction. Students will be introduced to core concepts in design and construction including: construction methods and materials; fundamental elements of design; and innovative technologies including Green Construction and Design. Students will be introduced to design software as they complete basic design projects, such as a bridge design, floor plans and elevation plans. This course also includes career exploration activities and research regarding the construction industry. Available at Arundel High School only.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD</td>
<td><strong>Principles of Construction Design</strong> 0.5/sem</td>
<td></td>
<td>This course provides students with an in-depth understanding of the construction design process. Students will complete a series of increasingly complex construction design projects in which they incorporate all aspects of the construction process, including zoning and regulation requirements; construction methods and materials, energy conservation; surveying; and project planning. Students will use design software to generate site plans (topography) as well as detailed building plans. Portfolios are used to show the developmental stages of a design project. Students will work in teams to develop each aspect of a construction project including developing a proposal, site plans, and construction management documents. Available at Arundel High School only.</td>
</tr>
<tr>
<td>CTE 21006/0210</td>
<td><strong>Honors Advanced Design and 3-D Modeling</strong> 0.5/sem</td>
<td></td>
<td>Students will work in teams to fully develop designs and a construction management plan for a pre-determined site. In this year-long project, students begin with the legal description and topography of the site and create a proposal for development. The construction design project must meet the client’s needs, budget, and the site characteristics. Students will generate a series of plans to be included with the proposal for submission to an industry review panel for approval. Upon completion of the course, students will demonstrate advanced design/drafting skills and be prepared for the AutoCAD certification exam. Available at Arundel High School only.</td>
</tr>
<tr>
<td>CTE 21000/0210</td>
<td><strong>Honors Advanced Construction Management</strong> 0.5/sem</td>
<td></td>
<td>This course builds on an understanding of the construction design process to advanced knowledge and skill in construction management. In this course, students will be required to work in teams to complete a project from existing plans. The year-long project will focus on building codes and standards, coordination of the construction process, estimating, planning and scheduling; and site management. Students will complete a portfolio of their design and construction management projects for review by an industry panel. Available at Arundel High School only.</td>
</tr>
<tr>
<td>CTE 21006/0210</td>
<td><strong>Department Aide—Technology Education</strong> No credit</td>
<td></td>
<td>Technology Education Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.</td>
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Dance

In Anne Arundel County all dance courses are offered on an elective basis for Fine Arts credit, Physical Education credit or General Elective credit based on the student’s academic needs. Dance courses include study in the major areas of dance — technique, history, creating original dance movement, the choreographic process, aesthetic criticism, and performance. The National High School Dance Standards are the basis for the high school dance curriculum. Creative thinking, expression through movement, and appreciation for the art form are integral parts of the program.

All Dance students perform in semester dance concerts. Students learn to appreciate the arts as a valuable aspect of life, become a knowledgeable arts audience, and have opportunities to work cooperatively to create and produce dance.

Students enrolled in Dance Education are expected to wear appropriate dance attire.

There are three dance tracks:

Dance 1–4 classes
- for students, beginners through advanced, who are interested in dance. No audition is required.

Dance for Athletes 1–4 classes
- for those wishing to use dance training techniques to enhance athletic performance. No audition is required.

Dance Company 1–4 classes
- for serious dance students who are selected by audition. Dance Company is co-curricular. Students have both an academic class and an after school rehearsal and performance obligation.

Fine Arts Graduation Requirement — 1 Credit

Courses that meet the Fine Arts requirement can be found in the Art, Dance, English, and Music program sections.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L02</td>
<td>Dance 1</td>
<td>0.5/sem</td>
<td>Dance 1 focuses on beginning levels of dance technique for a variety of dance styles, alignment, dance history, physiology, theory, dancer health, careers, choreography, performance, and criticism.</td>
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<tr>
<td>DUAL</td>
<td>05001/0400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L03</td>
<td>Dance 2–4</td>
<td>0.5/sem</td>
<td>Dance 2, 3, 4 emphasizes increased technical proficiency in dance styles progressing toward focus on dance as a performing art and means of communication. Students continue to increase knowledge of dance history, theory, choreography and criticism. Prerequisites: Dance 1 05001/0400</td>
</tr>
<tr>
<td>L11</td>
<td>Dance for Athletes 1</td>
<td>0.5/sem</td>
<td>Dance for Athletes 1 focuses on enhancing and refining athletic performance through dance techniques, conditioning, and training in the art of dance. Students will participate in a dance performance experience. 05003/0400</td>
</tr>
<tr>
<td>L12</td>
<td>Dance for Athletes 2–4</td>
<td>0.5/sem</td>
<td>Dance for Athletes 2, 3, 4 emphasizes continued skill development and refinement through a variety of higher level movement patterns. Student originated performance projects occur at these levels. Prerequisites: Dance for Athletes 1 05003/0400</td>
</tr>
<tr>
<td>L18</td>
<td>Honors Dance Company 1–4</td>
<td>0.5/sem</td>
<td>Dance Company classes are performance emphasis and goal-based with students involved in research, choreography, and every aspect of dance production. Technical proficiency, academic knowledge, portfolio building, continued improvement and growth in dance, and public dance performances are expected. Prerequisites: Audition 05002/0400</td>
</tr>
</tbody>
</table>
Essential to any society are its language and literature. They define and connect us as a people. They enable us to preserve traditions, to create and maintain community, and to envision the future. Strong literacy skills in reading, writing, listening, and speaking are critical to career and college success in the 21st century. The program of studies in English is designed to cultivate in each of our students proficiency in and appreciation of language and literature. Texts selected for study reflect a variety of genres, cultures, and time periods. Texts are selected based on complexity and literary merit. Some texts may contain mature language, content, and/or themes.

Students must earn a minimum of four credits in English in order to graduate. The English program further provides a rich array of electives that develop individual talent and opens opportunities to study special areas such as theatre, journalism, media, and all aspects of publication. Students are encouraged to participate in a rigorous program of required English courses and English electives.

Through their experiences in the English classroom, students develop voice, refine the knowledge and skills necessary for achieving high standards, participate in a community of learners, and expand the scope of their lives.

**English Graduation Requirements — 4 Credits**
- English 9
- English 10
- English 11 (or an AP English)
- English 12 (or an AP English)

**Required Assessments**
All students must take and pass the state high school assessment in English 10.

*Please check with your school counselor for the different opportunities to meet the high school assessment requirement.*
A107 | **Honors English 10** 0.5/sem

In Honors English 10 students apply critical theories and rhetoric to literature and composition using challenging texts to practice critical reading; analyze themes, structures and details; apply grammar; and use research for oral and written compositions. Texts represent a variety of genres of literature, including world literature, from a spectrum of time periods. Students receive preparation for AP English courses, including timed writing opportunities with actual AP questions. Students may be assigned reading over the preceding summer.

NCAA 01002/0801

A110 | **English 11** 0.5/sem

In English 11 students continue to develop reading and writing skills. Students read a variety of genres of literature, primarily American, from a spectrum of time periods. Emphasis is placed on literary conventions and stylistic devices. Through frequent writing and research assignments based upon the reading, students strengthen skills in logical writing patterns, word choice, usage, and techniques of using evidence from research.

NCAA 01003/0801

A117 | **Honors English 11** 0.5/sem

In Honors English 11 students read and analyze challenging texts representing a variety of genres of literature, primarily American, from a spectrum of time periods. Emphasis is placed on literary conventions, stylistic devices, and critical analysis. Through frequent writing and research assignments based upon the reading, students strengthen skills in logical writing patterns, word choice, usage, and techniques of using evidence from research. Students receive preparation for AP English courses, including timed writing opportunities with actual AP questions. Students may be assigned reading over the preceding summer.

NCAA 01003/0801

A120 | **English 12** 0.5/sem

English 12 blends composition and literature into a cohesive whole as students write multi-paragraph critical and comparative analyses of selected literature, including contemporary works, continuing to develop their writing and language skills. Students demonstrate increasing independence in reading, writing, research, speaking, and listening.

NCAA DUAL 01004/0801

A127 | **Honors English 12** 0.5/sem

Honors English 12 blends composition and literature into a cohesive whole and continues to develop students’ skills in writing, research, language, speaking, and listening. Students demonstrate increasing independence in critical and comparative analyses of selected challenging literature, including contemporary works, and in applying writing and language skills to develop multi-paragraph essays and presentations based on their reading and research. Students may be assigned reading over the preceding summer.

NCAA 01004/0801

A19 | **American Film Studies** 0.5sem

This course is a survey of American Film’s history ranging from the late 19th Century to today, as well as a study of the technique, fine art, narrative form, mode, craft, and influence of American cinema. The course will include screenings, lectures, discussion, exploration, investigation, analysis, and creation of film.

05168/0801

A18 | **Honors Film & Writing** 0.5/sem

Film and Writing is a course to help students gain a deeper understanding of difficult concepts. This course is designed to use film as a springboard for high-level discussion, reading and writing. The course allows students to become familiar with the interpretive language of film, to cultivate the reading of film as text, and to create writing artifacts that critically analyze film.

01139/0801

A136 | **Seminar: AP English Literature & Composition** 0.5/sem

This course prepares those students who require additional practice, guidance, and experiences beyond those available in their AP English Literature and Composition course, preparing them for success on the AP English Literature and Composition exam and for effective reading and writing in college and beyond. Students receive intensive assistance in the concepts and skills tested by the AP English Literature and Composition exam.

Concurrent enrollment: AP Literature & Composition 22005/2000

A208 | **AP English Language & Composition** 0.5/sem

Students take this course in junior or senior year to study rhetoric, composition, and grammar at the university level. Students analyze authors’ language, detail, style, audience, and patterns of rhetoric. Students complete required reading during the preceding summer. The reading and writing skills honed in this course complement the skills required in AP English Literature and Composition. This course prepares students for the AP exam and for effective reading and writing in college and beyond.

Prerequisites: English 10

NCAA 01005/0801

A206 | **Seminar: AP English Language & Composition** 0.5/sem

This course prepares students who require additional practice, guidance, and experiences beyond those available in their standard AP English Language and Composition course. Students receive assistance in analysis and interpretation of rhetoric, composition, and research, for mastery of language and grammar, and for self-evaluation of their reading and writing. Students also receive additional preparation for the AP exam.

Concurrent enrollment: AP English Language & Composition 22005/2000

A14 | **Journalism** 0.5sem

Students explore the role of journalists in a free society in terms of journalistic philosophy, ethics, law, and history. They participate and reflect upon all the components of journalism such as design and opinion. This is the foundation course for Newspaper 1 and Yearbook 1.

NCAA DUAL 11101/0802
A17  | **Creative Writing**  | 0.5sem
Creative Writing offers students the opportunity to develop and improve their technique and individual style in poetry, short story, drama, essays, and other forms of prose. Students study exemplary writing from various genres to obtain a fuller appreciation of the form and craft. Using reading and journal keeping as sources of ideas, students pursue individual interests and develop their talents.

NCAA  | DUAL  | 01104/0801

A21  | **Academic Writing**  | 0.5sem
Students learn and practice modes of writing most common to AP and college courses: exposition, argument, on demand, and documented writing. Through frequent practice and guided revision, students improve the unity, coherence, and emphasis in their writing while continuing to develop their mastery of word choice, sentence fluency, and conventions. This course is intended as a preparation or companion course for any AP course.

01102/0801

A06  | **Theatre Arts 1**  | 0.5/sem
This course is a one or two semester elective introduction to theatre as a collaboration among actors, directors, producers, and technicians. It focuses on the process of theatrical production both on and backstage. Students develop body movement, voice, and character; direction; set, costume, and other theatrical skills and knowledge. By applying creative dramatics, using multi-media, performing, and creating a design portfolio, students demonstrate and extend their theatrical skills.

DUAL  | 05051/0500

A07  | **Theatre Arts 2**  | 0.5/sem
Students specialize in areas of interest and apply this specialty working in production teams to design and perform excerpts from Lapine and Sondheim’s Into the Woods. Students form theatre companies within the class to apply their skills to a complete, student-selected, musical script within the class, and to participate in a full production at their school. Theatre Arts 2 meets and exceeds the State of Maryland Essential Learner Outcomes for Theatre.

Prerequisites: Theatre Arts 1

05052/0500

A08  | **Theatre Arts 3**  | 0.5sem
Theatre Arts 3 allows students to expand their understanding of theatre beyond improvisation and script reading, which are the focuses of Theatre Arts 1 and Theatre Arts 2. In this class students explore the historical aspects of theatre, examine the business side of theatrical production, build portfolios, and prepare for auditions. This class prepares students for the world of theatre beyond acting.

Prerequisites: Theatre Arts 2

05053/0500

A29  | **Media Production 1**  | 0.5sem
Media Production 1 surveys the field of television and introduces students to basic studio operations. Students participate in both the business and creative sides of television production: soliciting projects and funding, acting, directing, producing, and applying audio and video techniques.

11103/0802

A30  | **Media Production 2**  | 0.5sem
Media Production 2 extends and applies knowledge gained in Media Production 1, especially in extending the course beyond television where possible, focusing on media projects, film study, and career exploration.

Prerequisites: Media Production 1

11051/0802

A35  | **Newspaper 1–4**  | 0.5/sem
Students publish a school newspaper by collaboratively learning and applying the following aspects of production: national criteria, codes of ethics, coverage, writing and editing, graphics, design, publishing software, organization of staff and resources, business operations, and budgeting. Students who elect to take the course more than once refine and expand their knowledge and skills, accept increasing responsibility for production, and assume leadership roles.

Prerequisites: Journalism

DUAL  | 11102/0801

A40  | **Yearbook 1–4**  | 0.5/sem
Students publish a yearbook by collaboratively learning and applying the following aspects of production: technology, theme, design, layout, graphics, writing and editing, photography, organization of staff and resources, business operations, and budgeting. They analyze publications using national criteria and develop a code of ethics. Students who elect to take the course more than once refine and expand their knowledge and skills, accept increasing responsibility for production, and assume leadership roles.

Prerequisites: Journalism

11104/0801

A45  | **Literary Magazine 1–4**  | 0.5/sem
Students study/apply design fundamentals and advanced publishing techniques to create a schoolwide literary magazine with a thematic concept. They evaluate a variety of professional and student media, develop and apply a code of ethics, and create plans to ensure diversity and wide participation. Students who elect to take the course more than once refine and expand their knowledge and skills, accept increasing responsibility for production, and assume leadership roles.

Recommended: Journalism

11104/0801

A51  | **Speech & Debate 1–2**  | 0.5/sem
Students perform informative and persuasive speaking, practice extemporaneous and oral interpretation skills, collect evidence from authoritative sources, and analyze arguments and strategies as preparation for interscholastic competition culminating in debate. Students develop leadership skills and initiative in competitive speaking. Speech and Debate provides strong background for careers in public relations, law, politics, or communications. Students who elect to take the course for a second semester enhance and deepen their skills in expressive and persuasive speaking.

NCAA  | 01153/0801
A747 | **Honors Contemporary Voices** 0.5sem
College-bound juniors and seniors analyze issues, perspectives, and author's craft in a range of multicultural works through guided and independent study, seminar and writing. While the subjects may be historical, the voice of each author is decidedly contemporary in that it gives full expression to a frank examination of human sexuality, of violence, and of social and economic status; therefore parents must give written permission to register a student in this course.

**Prerequisites:** Written Parent Permission, 'Proficient' or 'Advanced' on English state assessment, and a 'C' or better in English 10

W80 | **Read 180 A** 0.5/sem
Read 180/System 44 is a highly differentiated reading intervention that accelerates instruction and allows struggling readers to experience success. The program directly addresses individual needs through adaptive and instructional software, high-interest literature, and direct instruction in reading, writing, and vocabulary skills. This reading intervention is provided for students who have been identified as needing focused and intensive reading instruction in addition to their regular English class. Students are placed in this program only after testing or evaluation.

01065/0801

W82 | **Read 180 B** 0.5/sem
In this course, students continue their work in the Read 180/System 44 program, a highly differentiated reading intervention that directly addresses individual needs through adaptive and instructional software, high-interest literature, and direct instruction in reading, writing, and vocabulary skills. This reading intervention is provided for students who have been identified as needing focused and intensive reading instruction in addition to their regular English class. Students are placed in this program only after testing or evaluation.

01066/0803

A87 | **Department Aide—English** No credit
English Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.

01995/2000
ESOL

English for Speakers of Other Languages (ESOL) courses are designed for English language learners at the newcomer, entering, beginning, and developing, expanding and bridging levels of English proficiency. By incorporating language with content, students are taught, and have ample practice with, the skills they need to meet grade-level standards while being introduced to the academic language needed for school success.

English as a Second Language (ESL) or Speakers of Other Languages (SOL) courses are not acceptable as NCAA Courses; however, advanced ESL or SOL courses may be used, but must be reviewed on a case-by-case basis. Any student who wishes to have advanced ESL courses considered when determining his or her initial eligibility must contact the institution he or she will be attending in order to begin the approval process. Please see your school counselor for assistance.

**ESOL 1**  
1.0/sem  
Entering or Beginning students are introduced to the basic structures of reading, writing, speaking and listening in English. Students learn to use English appropriately in a range of academic and social situations. They also develop basic reading and writing strategies, expand oral comprehension, and learn initial conventions of grammar and punctuation.  
**Prerequisites:** ESOL Teacher Recommendation

**ESOL 2**  
1.0/sem  
English learners in the Developing or Expanding levels focus on the expanding social and academic language skills in listening, speaking, reading and writing. Students become more independent in the writing process by developing narrative, descriptive, technical, and persuasive writing. They also apply reading strategies to a variety of fiction and nonfiction and engage in research activities.  
**Prerequisites:** Completion of ESOL Level 1 or its equivalent

**ESOL 3**  
1.0/sem  
English learners in the Expanding or Bridging levels focus on developing proficiency in listening, speaking, reading and writing. Students expand their academic language and examine authentic literature, including novels, short stories, plays, poetry, narratives, and biographies. They also engage in the writing process to develop narrative, descriptive, technical, and persuasive writing. Instruction will expand their use of technology to engage in research.  
**Prerequisites:** Completion of ESOL Level 2 or its equivalent

**ESOL 4**  
0.5/sem  
Students focus on mastering the four Language Domains of listening, speaking, reading and writing. Students will receive instruction on the acquisition of social and academic language based on the five WIDA Standards (The Social and Instructional Language, The Language of Language Arts, The language of Mathematics, The Language of Science and The Language of Social Studies). This course also supports and enhances literacy and listening skills necessary for success in the Language Arts, Mathematics, Science and Social Studies content areas. This course is correlated with the Common Core State Standards in conjunction with the WIDA Standards in order to meet high academic standards in content areas. In addition, students will focus on non-fiction reading comprehension and the application of academic language in a variety of content areas. Instruction includes a focus on academic writing, application of research and study skills including the use of technology to complete research projects.

**ESOL Social Studies 1 (HS)**  
0.5/sem  
This course is for Level 1 proficiency English learners. ESOL Social Studies 1 is a hands-on, background building Social Studies and language development course for students new to the United States. Students will become familiar with the geography, history, and government of the United States while comparing and contrasting with other countries as well. Content is focused on creating equivalent background knowledge to students who attended elementary and middle school in the United States, and as preparation for U.S. History and Government courses, as well as the Government HSA. This course provides an opportunity to build the capacity of students to understand and share experiential information from both their familial and community backgrounds, as well as build their academic language.

**ESOL Social Studies 2 (HS)**  
0.5/sem  
This course is for Level 2 proficiency English learners. ESOL Social Studies 2 is a hands-on, background building Social Studies and language development course for students new to the United States. Students will become familiar with the geography, history, and government of the United States while comparing and contrasting with other countries as well. Content is focused on creating equivalent background knowledge to students who attended elementary and middle school in the United States, and as preparation for U.S. History and Government courses, as well as the Government HSA. This course provides an opportunity to build the capacity of students to understand and share experiential information from both their familial and community backgrounds, as well as build their academic language.
## Suggested Course Sequence for High School English Language Acquisition Students

*Use WIDA ACCESS proficiency scores and ELA teacher input for placement.*

<table>
<thead>
<tr>
<th>Proficiency Level</th>
<th>ESOL 1</th>
<th>ESOL 2</th>
<th>ESOL 3</th>
<th>ESOL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 1.9</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>0.5 credit/semester</td>
</tr>
<tr>
<td>2.0 – 2.9</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>0.5 credit/semester</td>
</tr>
<tr>
<td>3.0 – 3.9</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>0.5 credit/semester</td>
</tr>
<tr>
<td>4.0+</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>1.0 credit/semester</td>
<td>0.5 credit/semester</td>
</tr>
</tbody>
</table>

### Math
- **ESOL Social Studies I**
  - E96010/20 — 0.5 credit/semester

### Social Studies
- **ESOL Social Studies 2**
  - E97010/20 — 0.5 credit/semester

### Science
- **Science Research 1**
  - co-taught ESOL/Science
  - 1 Science credit

### English
- **ESOL 1**
  - E90410/20 — 1.0 credit/semester

### Health/PE
- **Walking Wellness**
  - or Team Sports
  - 0.5 PE credit

### Fine Arts
- **Music for Life**
  - and Foundations of Studio Art
  - 1 Fine Arts credit

### WCL
- **Spanish 1**
  - for native speakers w/low Spanish literacy
  - 1 WCL Completer credit

### Suggested Electives
- **Dance, Guitar, Piano, Weight Training, Software Applications**

### CTE
- **CTE Explorations**
  - or Level 1

### Notes:
1. ESOL 1, 2, and 3 can count for up to 2 English credits toward graduation requirements.
2. Transitional Math at the high school level must be taught by a certified Math teacher. Transitional Math can count for up to 2 mathematics credits.
3. Special sections of Spanish 1 and Spanish 2 with a literacy focus can be offered for native Spanish speakers with low native language literacy levels. Base enrollment on Spanish literacy over English proficiency level.
Health Education courses in Anne Arundel County are focused on building health literate students. Health literacy refers to the ability to obtain, interpret, and understand basic health information and services. These courses prepare students to become health literate 21st Century learners as responsible members of society; self-directed learners, effective communicators, critical thinkers and problem solvers.

Core health concepts include: mental and emotional health, alcohol, tobacco and other drugs, personal and consumer health, family life and human sexuality*, safety and injury prevention, nutrition and fitness, and disease prevention and control. Health skills include: analyzing influences, accessing information, communicating effectively, decision making, practicing health-enhancing behaviors, goal setting and advocacy.

**Health Graduation Requirement — 0.5 Credit**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>L67</td>
<td><strong>Introduction to Health Professions</strong></td>
<td>0.5sem</td>
</tr>
<tr>
<td></td>
<td>This course introduces students to professional health careers, medical terminology, and technology. Education and certification required for professional health careers is explored. Guest speakers provide work-based learning experiences.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14002/1100</td>
<td></td>
</tr>
<tr>
<td>L70</td>
<td><strong>Health</strong></td>
<td>0.5sem</td>
</tr>
<tr>
<td></td>
<td>This course is designed for students to learn and demonstrate health skills necessary to promote personal, family and community health and wellness. These health skills include analyzing influences on health behaviors, accessing valid information, interpersonal communication, decision making, goal setting and practicing health enhancing behaviors. Through these health skills students acquire functional knowledge about the following core health concepts: alcohol, tobacco and other drugs, personal and consumer health, family life and human sexuality,* safety and injury preventing, nutrition and fitness, and disease preventing and control.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08051/1100</td>
<td></td>
</tr>
<tr>
<td>L75</td>
<td><strong>Human Sexuality</strong></td>
<td>0.5sem</td>
</tr>
<tr>
<td></td>
<td>This is an advanced level course with an emphasis on promoting life enhancing health behaviors relating to one’s sexuality. Content focus is on sexuality, decision making, relationships, protecting one’s own health, human reproduction, and social issues.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisites:</strong> Health and Parental/Guardian Permission Form to be obtained from School Counseling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08053/1100</td>
<td></td>
</tr>
<tr>
<td>L95</td>
<td><strong>Drugs in Society</strong></td>
<td>0.5sem</td>
</tr>
<tr>
<td></td>
<td>This elective course will examine the issues related to use, misuse and abuse of tobacco, alcohol and other drugs. Students will take an in-depth look at specific substances of abuse and explore methods of prevention, intervention and treatment for addiction. An emphasis on the skills to identify the impact of family, peers, culture, media and technology on drug use behaviors; to know how to access valid drug prevention information, use interpersonal communication, decision-making, goal setting, and advocacy skills; and to enact personal health enhancing practices.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisites:</strong> Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08058/1100</td>
<td></td>
</tr>
</tbody>
</table>

*A student may be excused from the Human Sexuality Unit upon parental written request. Alternative instructional lessons will be provided for the student.*
Mathematics

After completing the required courses of Algebra 1 and Geometry, students may choose from a set of rigorous courses such as Integrated Topics, Algebra 2, Foundations of College Algebra, Pre-Calculus, Statistical Analysis, Advanced Placement Statistics, Advanced Placement Calculus and/or Linear Algebra. The selection of the appropriate mathematics course for each student should be based on individual needs and educational goals.

Mathematics Graduation Requirements — 4 Credits

- Algebra 1
- Geometry
- 2 additional Mathematics courses

Note: A student must be enrolled in a mathematics class each of their high school years. See page 7.

Required Assessments

All students must take and pass the state high school assessment in Algebra.

*Please check with your school counselor for the different opportunities to meet the high school assessment requirement.*

D00 | Algebra Bridge

This non-credit course offers students an opportunity to create projects to meet state testing requirements in Algebra. Students must meet established criteria to participate in Bridge.

22002/1200

D18 | Daily Algebra 1

0.5 Math & 0.5 Elective/sem

This high school graduation requirement course serves as the gateway for advanced mathematical courses by providing a complete foundation of the topics in exponential equations, data analysis and modeling, quadratic functions and equations, and critical analysis and understanding of functions in comparison to linear functions. Instructional emphasis is placed on connecting the multiple representations of functions and interpreting the representations through applications. Graphing calculator is required. Students will actively engage in hands-on project based learning experiences throughout the course. This course serves as the traditional 9th grade daily Algebra 1 course.

NCAA 02053/1200

D27 | Algebra 1

0.5/sem

This high school graduation requirement course serves as the gateway for advanced mathematical courses by providing a complete foundation of the topics in exponential equations, data analysis and modeling, quadratic functions and equations, and critical analysis and understanding of functions in comparison to linear functions. Instructional emphasis is placed on connecting the multiple representations of functions and interpreting the representations through applications. Graphing calculator is required. Students will actively engage in hands-on project based learning experiences throughout the course. This course, where offered, is delivered in an every other day compressed format.

NCAA 02053/1200

D28 | Geometry

0.5/sem

This course serves as the second course in the mathematical sequence. Students will formalize their geometry experiences from elementary and middle school, using more precise definitions and developing careful proofs; represent problem situations with geometric models; classify figures in terms of congruence and similarity; deduce properties of and relationships between figures from given assumptions; and translate geometric figures to an algebraic coordinate representation and algebraic models; apply right triangles and trigonometry. Through the use of dynamic software, students will gain an understanding of the relationships among mathematical figures and become active participants in the inductive and deductive processes of thinking. Students will actively engage in hands-on project based learning experiences throughout the course. The graphing calculator is used throughout the course.

Prerequisites: Algebra 1

NCAA 02072/1200

AACPS Possible Math Course Pathways*

*Other sequences of mathematical pathways not listed on this diagram are possible depending upon individual student needs. Other mathematics elective courses are also available.*
This course serves as the second course in the advanced mathematical sequence. Students will formalize their geometry experiences from elementary and middle school, using more precise definitions and developing careful proofs; represent problem situations with geometric models; classify figures in terms of congruence and similarity; deduce properties of and relationships between figures from given assumptions; and translate geometric figures to an algebraic coordinate representation and algebraic models; apply right triangles and trigonometry. Through the use of dynamic software, students will gain an understanding of the relationships among mathematical figures and become active participants in the inductive and deductive processes of thinking. Students will actively engage in hands-on project based learning experiences throughout the course. Honors students will be introduced to advanced topics.

Prerequisites: Algebra 1

NCAA 02072/1200

This course will review beginning algebra topics such as solving and graphing linear equations and inequalities, manipulation, graphing, and solving quadratic functions. These concepts are imbedded in a variety of real-life situations. This course is designed to serve as a bridge course from Algebra 1 to Algebra 2 by reinforcing concepts and skills necessary for success in Algebra 2.

Prerequisites: Algebra 1 and Geometry credit or concurrent enrollment in Geometry.

Recommended: This course is sequenced between Algebra 1 and Algebra 2.

NCAA 02061/1200

This course will expand students’ knowledge of functions to include polynomial, rational and radical functions. Students will work with expanding features of the functions and draw connections with the experiences of linear, quadratic, and exponential functions. Students will model situations to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Students will build on their experiences to work with trigonometric ratios and functions. This course also has a focus on data and probability distributions. Honors students will be introduced to advanced topics. Graphing calculator is required. Students will actively engage in hands-on project based learning experiences throughout the course.

Recommended: Algebra 1 (C or better) and Geometry credit or concurrent enrollment in Geometry.

NCAA 02056/1200

This course reviews and extends intermediate and advanced algebra topics through rigorous manipulation of mathematical concepts. Concepts include systems of equations, polynomial, rational, exponential and logarithmic functions. This course is designed to prepare students for success in the first credit bearing mathematics course in post secondary educational settings.

Prerequisites: Algebra 1

NCAA DUAL 02058/1200

This course integrates the study of trigonometry, analytic geometry, and advanced algebra topics into a logical approach to the solution of real-world problems. This course is a prerequisite for Advanced Placement Calculus. Graphing calculator required.

Prerequisites: Algebra 2

NCAA DUAL 02110/1200

This course integrates the study of trigonometry, analytic geometry, and advanced algebraic topics into a logical approach to the solution of real-world problems. This course is a prerequisite for Advanced Placement Calculus. Graphing calculator required. Honor students will be introduced to advanced topics.

Prerequisites: Algebra 2

NCAA 02110/1200

Students will develop their ability to function as independent learners in the Honors Pre-Calculus course. This course is recommended for students who require additional practice, guidance, and experiences beyond those available in the Honors Pre-Calculus course.

Prerequisites: Concurrent enrollment in Honors Pre-Calculus.

NCAA 02205/1200

This college level course is the study of differential and integral calculus based on further development of properties and graphs of relations and functions. Students who successfully complete this course will be prepared for the AP Calculus AB test and may be awarded up to one semester of college credit with a successful score. Graphing Calculator required.

NCAA 02124/1200
DS86 | Seminar: AP Calculus AB 0.5/sem
Students will develop their ability to function as independent learners in the AP Calculus AB course. This course is recommended for students who require additional practice, guidance and experiences beyond those available in the standard AP Calculus AB course.
Prerequisites: Concurrent enrollment in AP Calculus AB
22005/1200

DS698 | AP Calculus BC 0.5/sem
This college level course is the study of differentiation and techniques, sequences and series, and vector calculus. Students who successfully complete this course will be prepared to take the AP Calculus BC test and may be awarded up to two semesters of college credit with a successful score. Graphing calculator required.
NCAA 02125/1200

DS608 | AP Calculus AB and BC Combined 1.0/sem
AP Calculus AB is a college level course studying differential and integral calculus based on further development of properties and graphs of relations and functions. Through inquiry based learning, students will develop mathematical critical thinking and reasoning skills. AP Calculus BC is a college level course studying differentiation and techniques, sequences, and series, and vector calculus. Through inquiry based learning, students will develop mathematical critical thinking and reasoning skills.
Recommended: Honors Pre-Calculus (C or better)
NCAA 02125/1200

D315 | Linear Algebra 0.5/sem
This course is the study of finite dimensional vector spaces. Topics include: the solution of systems of linear equations, matrices (inverses, equivalence, rank of symmetric, diagonal and orthogonal), determinants, introduction to vector spaces, linear independence, linear transformations, change of basis, eigenvalues and eigenvectors.
Prerequisites: AP Calculus AB/BC credit with a 3 or higher on the AP Calculus BC exam. Face to face or online in alternate (even school years).
NCAA DUAL 02111/1200

D628 | AP Statistics 0.5/sem
This college level course is a study of the major concepts and tools for collecting, analyzing, and interpreting data. Students who successfully complete this course will be prepared to take the AP Statistics test and may be awarded at least one semester of college credit with a successful score. Graphing calculator required. For STEM students, this course may be offered as a hybrid.
NCAA 02203/1200

D626 | Seminar: AP Statistics 0.5/sem
Students will develop their ability to function as independent learners in the AP Statistics course. This course is recommended for students who require additional practice, guidance and experiences beyond those available in the standard AP Statistics course.
Prerequisites: Concurrent enrollment in AP Statistics.
22005/1200

D63 | Calculus 3 0.5/sem
Multivariable Calculus presents the main concepts and computational tools of higher dimensional calculus. It is equivalent to a third semester calculus course. The topics include vectors in Euclidean space, vector analysis, analytic geometry of three dimensions, curves in space, partial derivatives, optimization techniques, multiple integrals, vector fields, Green’s theorem, Divergence theorem, and Stokes’ theorem.
Prerequisites: AP Calculus AB/BC credit with a 3 or higher on the AP Calculus BC exam. This course is through Broadcast online learning only offered every other year (odd school years).
NCAA DUAL 02126/1200

D77 | Statistical Analysis 0.5/sem
This project-based course will provide students with real-life experiences with data. Topics include: basic probability models, statistical estimation and testing, descriptive statistics, methods of sampling, sampling distributions, and misleading statistics.
NCAA 02201/1200

D80 | Transition Math 9–12 0.5/sem
High School Transitional Math is a math course to address the gaps in mathematics background for students with interrupted or limited formal education. Key mathematic concepts from grades 2 through Algebra including numbers, operations, decimals, fractions, ratios, percents, number theory, integers, statistics, graphs, tables, and algebraic thinking are embedded with math language development and discourse instruction. Only ESOL students scoring below Algebra readiness on the International Math Assessment are to be scheduled for this course. Students may take this course repeatedly during high school, but only the first two instances of passing this course will count toward math graduation requirements.
02001/1200

D87 | Department Aide—Math No credit
Mathematics Aide courses offer students the opportunity to assist instructors in preparing and/or organizing. Students may provide tutorial or instructional assistance to other students.
02995/2000
Music

The Anne Arundel County high school music program is comprehensive in scope and breadth and is offered for all student levels and interests. In a world where much importance is being attached to 21st century skills, high school music courses are ideal settings for the development and broadening of those skills. Music classes are both rigorous and stimulating and offer students many opportunities for creative, innovative thinking that encourages problem solving and collaboration.

Students are required to earn at least one full credit in Fine Arts by the end of the senior year. Most students begin their high school music study with a performance based course, such as band, orchestra, chorus, vocal ensemble, musical theater, jazz band, guitar, or piano. These performance courses are then offered in subsequent years, with increased rigor and performance opportunities for each level and with an honors option in the student’s final year. Music for Life is a broad-based course, designed to focus on the function and value of music in people’s lives across cultures. Students will also find the opportunity to explore the science of music and music’s unique contribution to history and civilization in Music Theory, Music History and Literature, and Advanced Placement Music Theory. Students may also choose from elective courses like Music Technology and Vocal Technique; classes which extend and reinforce core learning in music.

Students enrolled in their appropriate school performance ensemble have the opportunity to participate in organizations such as All County Ensembles, All State music experiences, solo and ensemble festivals, and other enrichment musical activities.

Fine Arts Graduation Requirement — 1 Credit

Courses that meet the Fine Arts requirement can be found in the Art, Dance, English, and Music program sections.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>F09</td>
<td>Guitar 1</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>F10</td>
<td>Guitar 2–4</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>F13</td>
<td>Piano &amp; Keyboard 1</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>F14</td>
<td>Piano &amp; Keyboard 2–4</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>F20</td>
<td>Chorus Mixed 1–3</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>F21</td>
<td>Honors Chorus Mixed 4</td>
<td>0.5/sem</td>
</tr>
</tbody>
</table>
This course will stress correct vocal production and techniques involving the male voice. Comprehensive musicianship will be emphasized through a study of varied repertoire appropriate to male voice ranges. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Public musical performances will be expected. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

F14 | *Instrumental Instruction: Woodwind* 0.5/sem
Small group instruction is provided for students desiring to acquire skill in playing woodwind instruments. Good tone production, instrumental techniques, sight-reading, and basic fundamentals of music are emphasized. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05109/1300

F15 | *Instrumental Instruction: Strings* 0.5/sem
Small group instruction is provided for students desiring to acquire skill in playing string instruments. Good tone production, instrumental techniques, sight-reading, and basic fundamentals of music are emphasized. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05109/1300

F16 | *Instrumental Ensemble: Woodwind* 0.5/sem
This course emphasizes good tone production, balance, and interpretation of music within a small group. Comprehensive musicianship is emphasized through a study of varied instrumental repertoire. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05106/1300

F17 | *Instrumental Ensemble: Strings* 0.5/sem
This course emphasizes good tone production, balance, and interpretation of music within a small group. Comprehensive musicianship is emphasized through a study of varied instrumental repertoire. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05106/1300

F18 | *Instrumental Ensemble: Mixed* 0.5/sem
Small group instruction is provided for students desiring to acquire skill in playing string, woodwind, brass, and percussion instruments. Good tone production, instrumental techniques, sight-reading, and basic fundamentals of music are emphasized. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05106/1300

F19 | *Instrumental Ensemble: Percussion* 0.5/sem
Small group instruction is provided for students desiring to acquire skill in playing percussion instruments. Good tone production, instrumental techniques, sight-reading, and basic fundamentals of music are emphasized. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05106/1300

F20 | *Instrumental Ensemble: Brass* 0.5/sem
Small group instruction is provided for students desiring to acquire skill in playing brass instruments. Good tone production, instrumental techniques, sight-reading, and basic fundamentals of music are emphasized. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05106/1300

F21 | *Honors Vocal Ensemble* 0.5/sem
This course emphasizes good tone production, balance, and interpretation of music within a small group. Comprehensive musicianship is emphasized through a study of varied instrumental repertoire. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05109/1300

F22 | *Chorus—Female* 0.5/sem
This course will stress correct vocal production and techniques involving the female voice. Comprehensive musicianship will be emphasized through a study of varied repertoire appropriate to female voice ranges. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Public musical performances will be expected. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05110/1300

F23 | *Chorus—Male* 0.5/sem
This course will stress correct vocal production and techniques involving the male voice. Comprehensive musicianship will be emphasized through a study of varied repertoire appropriate to male voice ranges. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Public musical performances will be expected. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05110/1300

F24 | *Honors Vocal Instruction* 0.5/sem
This course will stress correct vocal production and techniques involving a varied vocal repertoire. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Public musical performances will be expected. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05111/1300

F25 | *Honors Vocal Instruction* 0.5/sem
This course will stress correct vocal production and techniques of solo singing. It will include sight-singing, the basic fundamentals of music and a wide repertoire of vocal music emphasizing comprehensive musicianship. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Opportunities for performance will be available based on the student’s ability. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05112/1300

F27 | *Chorus—Male* 0.5/sem
This course will stress correct vocal production and techniques of solo singing. It will include sight-singing, the basic fundamentals of music and a wide repertoire of vocal music emphasizing comprehensive musicianship. Students will be expected to master at least one appropriate level in Chorus and Vocal Instruction. Public musical performances will be expected. After school activities and rehearsals are integral to the course, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year varies by school.

05111/1300
This course provides an opportunity for students who have reached
the necessary degree of maturity in playing an instrument to perform
different styles of jazz from the big band era as well as dance music,
rock, and popular music of the present day. Improvisation and stylistic
playing will be emphasized to develop comprehensive musicianship.
Public musical performances will be expected. After school activities
and rehearsals are integral to the course, and grades may reflect such
participation. The number of required non-school hour performances
and practices during a school year varies by school.
05105/1300

This course provides an opportunity for students who have reached
the necessary degree of maturity in playing an orchestral, string,
wind, or percussion instrument to perform in a group. Development
of comprehensive musicianship will be emphasized through a wide
repertoire of original string and orchestra literature, transcriptions, and
arrangements. The course title indicates the year enrolled. Students
will be expected to advance to the next appropriate level of ability
in Performance Competencies for Instrumental Music: Strings. After
school activities and rehearsals are integral to the course, and grades
may reflect such participation. The number of required non-school
hour performances and practices during a school year varies by school.
05104/1300

This course provides an opportunity for students who have reached
the necessary degree of maturity in playing an orchestra, string,
wind, or percussion instrument to perform in a group. Development
of comprehensive musicianship will be emphasized through a wide
repertoire of original string and orchestra literature, transcriptions, and
arrangements. The course title indicates the year enrolled. Students
will be expected to advance to the next appropriate level of ability
in Performance Competencies for Instrumental Music: Strings. After
school activities and rehearsals are integral to the course, and grades
may reflect such participation. The number of required non-school
hour performances and practices during a school year varies by school.
05104/1300

This course is designed to familiarize the student with the building
blocks of music. Rhythm, melody, harmony, form, and analysis are
the key components of this course. Students will use standard music
notation to read, write, and understand the structure of music. Sight
singing, ear-training and creating through composing and arranging
are important components of this course. The course is a pre-requisite
to AP Music Theory.
05113/1300

This course will provide students with an introduction to style periods
of music history, prominent composers, and exemplary music literature.
Students will become familiar with the most important instrumental
and vocal genres by carefully listening to, describing and analyzing
representative compositions.
05117/1300
**Music Technology** 0.5/sem

This course will provide students with an introduction to basic music technology applications. Students will be introduced to the creative use of music technology and the fundamentals of music using synthesizers, computers, Musical Instrumental Digital Interface (MIDI) keyboards, sequencers, and appropriate software. The course will be taught within a hands-on framework and will allow students to create their own compositions. Students will also develop skills with sequencing, recording, and notating music.

05149/1300

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**AP Music Theory** 0.5/sem

This high school course is offered to students who wish to pursue the study of music theory in a course equivalent to a college introductory course in music theory. This is a college level course designed to earn college level credit for those students scoring at an acceptable level on the College Board Examination. Students will study all interval, scale, and triad forms, notation, simple acoustics, tuning and temperament, and structures of music. Students will study part-writing and harmonic progressions in tonal music with a strong emphasis given to listening skills, particularly those involving recognition and comprehension of compositional techniques. Sight singing, ear training, and creating through composing and arranging are also components of the course.

**Prerequisites:** Honors Music Theory

05114/1300

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**Musical Theater** 0.5/sem

This course will survey the development of musical theater in Europe and America. Comprehensive training in the skills and techniques necessary for the staging of a musical production will be emphasized. The culminating activity may be the staging of a musical production for public performance.

05052/1300

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**Department Aide—Music** No credit

Fine and Performing Arts Aide courses offer students the opportunity to assist instructors in preparing and/or organizing. Students may provide tutorial or instructional assistance to other students.

05995/2000
Physical Education

Physical education classes provide opportunities for students to improve lifelong health, fitness, and activity-related skills. Physical education presents information that challenges students to improve personal fitness levels and to participate in individual and team activities. All courses focus on the development and the maintenance of a healthy and actively fit individual which can be measured by the Healthy Fitness Zone component of Fitnessgram. Physical education is an essential component in the education of the whole child by linking cognitive knowledge to physical activity and social interaction.

Students are required to earn at least one full credit of physical education course by the end of their senior year. Fitness for Life, the required high school physical education class, is the foundation of individual lifetime fitness information. Additional courses are offered to support and extend individual fitness goals and interests. Personal fitness elective courses include aerobics, strength and conditioning, and walking. Sport oriented elective courses are offered in lifetime and team sports. A variety of dance courses also satisfy the physical education requirements for graduation (see Dance).

All students are expected to wear appropriate uniform attire during physical education classes for the purpose of ensuring the safety and hygiene of each participant. This practice continues to be an important component of the physical education program.

Physical Education Graduation Requirements — 1 Credit

- Fitness for Life (0.5 credit)
- Physical Education or Dance Elective (0.5 credit)

L01 | Adaptive Physical Education 0.5sem
This course provides physical education activities (sports, fitness, and conditioning) adapted for students with special needs.
08007/1500

L02 | Fitness for Life 0.5sem
Students beginning their high school physical education experience will be introduced to the components of fitness and shown the relationship of physical fitness to total well-being. The physical education program includes skillfulness, exercise physiology, biomechanical principals, social psychological principles, motor learning, and physical activity. Fitness components are embedded throughout all instruction along with activities which address each of the physical education content standards. Students’ physical fitness will be assessed through the administration of FitnessGram, a battery of standardized tests used to determine levels of fitness. Reports of these assessments will be analyzed to help students develop a personal wellness plan. Students will be afforded the opportunity to participate in a variety of activities which can be pursued during high school and throughout their lifetime.
08001/1500

L07 | Gymnastics 1 0.5/sem
Gymnastics courses are designed to help students develop knowledge and skills in gymnastics, stunts, and tumbling while emphasizing safety. Floor gymnastics may be supplemented by the use of gymnastic equipment such as balance beam, uneven bars, parallel bars, rings, and so on. Gymnastic courses may include other components such as the history of gymnastics and conditioning.
08008/1500

L08 | Gymnastics 2–4 0.5/sem
Gymnastics 2, 3, 4 continues the development of tumbling skills and use of gymnastics apparatus with an emphasis on routines for performance to reflect skill, innovation, and creativity. Self-evaluation of performance also increases. Knowledge of related anatomical, physiological, and biomechanical concepts is enhanced. Includes more advanced tumbling and apparatus skills.
08008/1500

L14 | Lifetime Sports 1 0.5/sem
Recreation sports courses provide students with knowledge, experience, and an opportunity to develop skills in more than one recreational sport or outdoor pursuit (such as adventure activities, croquet, Frisbee, wall climbing, bocce ball, fishing, hiking, cycling, and so on).
08004/1500

L15 | Lifetime Sports 2–4 0.5/sem
Lifetime Sports 2, 3, 4 extends student experiences in leisure activities throughout life and allows the their to refine skills in multiple sport offerings. Students increase knowledge and proficiency in all sport and leisure activities.
08004/1500

L35 | Recreation & Leadership Training 0.5sem
This course includes activities and training to equip students for employment in recreational areas. It includes games, arts and crafts, child growth and development, officiating techniques and tournament organization. The course could lead to a career in physical education, recreation, or athletics.
08055/1500
L37 | Team Sports 1 0.5/sem
Students will learn rules, terms, historical background and basic skills for a variety of sports. The student will be able to understand team strategy in a competitive situation.
08002/1500

L37–1 | Team Sports Baseball 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of baseball. The student will be able to understand team strategy in a competitive situation.
08013/1500

L37–2 | Team Sports Basketball 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of basketball. The student will be able to understand team strategy in a competitive situation.
08013/1500

L37–3 | Team Sports Football 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of football. The student will be able to understand team strategy in a competitive situation.
08013/1500

L37–4 | Team Sports Lacrosse 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of lacrosse. The student will be able to understand team strategy in a competitive situation.
08013/1500

L37–5 | Team Sports Soccer 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of soccer. The student will be able to understand team strategy in a competitive situation.
08013/1500

DUAL 08013/1500

L37–6 | Team Sports Volleyball 1 0.5/sem
Students will learn rules, terms, historical background and basic skills of volleyball. The student will be able to understand team strategy in a competitive situation.
08013/1500

L38 | Team Sports 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08002/1500

L38–1 | Team Sports Baseball 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of baseball through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L38–2 | Team Sports Basketball 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of basketball through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L38–3 | Team Sports Football 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of football through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L38–4 | Team Sports Lacrosse 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of lacrosse through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L38–5 | Team Sports Soccer 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of soccer through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L38–6 | Team Sports Volleyball 2–4 0.5/sem
Students will improve their knowledge of game rules and basic skills of volleyball through the refinement of participation and increase depth of knowledge team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.
08013/1500

L51 | Walking Wellness 1 0.5sem
This course is an introduction to the life-time wellness activity of walking. It will provide students with an understanding of the importance that nutrition and exercise has on the pursuit of healthy living. Students will log their effort. Various activities are embedded throughout the course which engage the learner and increase participation.
08005/1500

L52 | Walking Wellness 2 0.5sem
This course extends the student’s opportunity for participating in the life-time wellness activity of walking. It increases the distances required to satisfy the curriculum and provides students with nutritional information consistent with healthy living. It provides students with goals that require a commitment to physical fitness in pursuit to healthy living.
08005/1500

L52 | Walking Wellness 2 0.5sem
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L56</td>
<td>Aerobics and Personal Fitness</td>
<td>0.5/sem</td>
<td>Health and Fitness courses combine the topics of Health Education courses (nutrition, stress management, substance abuse prevention, disease prevention, first aid, and so on) with an active fitness component (typically including aerobic activity and fitness circuits) with the intention of conveying the importance of life-long wellness habits. DUAL 08052/1500</td>
</tr>
<tr>
<td>L57</td>
<td>Aerobics and Personal Fitness 2</td>
<td>0.5/sem</td>
<td>This course provides students with opportunities to develop optimal levels of physical fitness and to acquire knowledge of the physical fitness components. 08052/1500</td>
</tr>
<tr>
<td>L58</td>
<td>Strength &amp; Conditioning 1</td>
<td>0.5/sem</td>
<td>Students are engaged in an individualized program designed to incorporate physical fitness components and improve physical condition. Weight room procedures and safety precautions are stressed in this beginning level course. Students will focus on technique rather than the amount of weight lifted. DUAL 08009/1500</td>
</tr>
<tr>
<td>L59</td>
<td>Strength &amp; Conditioning 2–4</td>
<td>0.5/sem</td>
<td>Students will continue a systematic training program to refine techniques for strength and conditioning. Students will have an opportunity to develop greater strength and to design, with instructor assistance, an individualized strength and conditioning program. 08009/1500</td>
</tr>
<tr>
<td>L72</td>
<td>Sports Medicine</td>
<td>0.5sem</td>
<td>Sports Medicine emphasizes multi-sensory activities, problem solving, interdisciplinary linkages, and provides knowledge of the impact and significance of health and physical education technology in a modern world. Sports Medicine incorporates awareness and exploration of careers in health, sports, and recreational technology. DUAL 08055/1500</td>
</tr>
<tr>
<td>TBD</td>
<td>Stretch Your Wellness</td>
<td>0.5/sem</td>
<td>This course serves as an introduction to the wellness activity of yoga and mindfulness. It will introduce a brief history of yoga, the anatomical benefits of yoga, and the physical practice of yoga as it pertains to relaxation techniques, breathing exercises, specific postures, healthy diet, and positive thinking. Through the exploration of the four components of mindfulness, students will learn healthy ways to relieve stress and promote a life-time of wellness. Students will be maintaining a portfolio throughout the course which consists of weekly logs, lesson activities, class notes, and journal responses. Students will be assessed through quizzes, reflections, and project based assessments. 00000/1500</td>
</tr>
<tr>
<td>L87</td>
<td>Department Aide—Physical Education</td>
<td>No credit</td>
<td>Physical Education Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students. 08995/2000</td>
</tr>
</tbody>
</table>
Science

Scientific literacy has become a necessity. Everyone needs to use scientific information to make choices that arise in everyday life. In the workplace, jobs demand advanced skills, requiring people to learn, reason, think critically, make decisions, and solve problems. Understanding science and the processes of science contributes to students learning these skills in an essential way (National Research Council, 1996).

Students who have successfully completed Algebra 1 in grade 8 can enroll in Honors Biology in grade 9. Students who have successfully completed STEM Math 8, earned an A or B in Science, and Language Arts and scored Advanced in the corresponding MSA or PARCC assessments may enroll in Standard Biology in grade 9. After successful completion of Biology, students should enroll in the core lab-based courses (Chemistry, Earth/Space Science, and Physics). Students may also choose from elective courses, which have a particular science focus and extend and reinforce core learning.

AACPS offer a full complement of advanced placement science courses—AP Biology, AP Chemistry, AP Physics 1, AP Physics 2, AP Physics C and AP Environmental Science. Students do not need an introductory physics course to enroll in AP Physics 1. Students may go directly to AP Physics 1 as their first physics course in high school if the math requirements have been satisfied.

Following the College Board Recommendations, Advanced Placement Physics 1 and 2 have been added to the course options. AP Physics 1 is equivalent to a first-semester college course in algebra-based physics. AP Physics 2 is equivalent to a second-semester college course in algebra-based physics. (See the course descriptions for more detail.)

Dissection is one of the many instructional methods that may be used in high school science. Students may request one of the alternatives to dissection in these classes. Alternatives may include such materials as videotapes, charts, diagrams, and textbook overlays.

Science Graduation Requirements — 3 Credits

- One credit in Biology
- Two laboratory science credits in the areas of Life Science, Earth Space Science, or Physical Sciences. (All courses in the Science section qualify.)

Required Assessments

All students must pass the state High School Assessment (HSA) in Biology to meet state graduation requirements.

Please check with your school counselor for the different opportunities to meet the High School Assessment requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>C00</td>
<td>Biology Bridge</td>
<td>No credit</td>
</tr>
<tr>
<td></td>
<td>This non-credit course offers students an opportunity to create projects to meet state testing requirements in the area of Biology. Students must meet established criteria to participate in Bridge.</td>
<td></td>
</tr>
<tr>
<td>22002/2000</td>
<td></td>
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</tr>
<tr>
<td>C09</td>
<td>Passing HSA: Biology</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>This course is for students who earned credit in Biology but did not pass the Biology High School Assessment. It is designed to help students pass the HSA.</td>
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<tr>
<td></td>
<td>Prerequisites: Algebra 1 and Biology</td>
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<tr>
<td></td>
<td>NCAA 03994/1601</td>
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</tr>
<tr>
<td>C01</td>
<td>Honors Pre-Engineering</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>In engineering students apply the principles of physics to everyday life. Students use mathematics to study motion, forces, energy and other concepts of physics. This program is available at the Centers of Applied Technology North and South.</td>
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</tr>
<tr>
<td></td>
<td>Prerequisites: Algebra 1 and Biology</td>
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<tr>
<td></td>
<td>NCAA 03153/1607</td>
<td></td>
</tr>
<tr>
<td>C24</td>
<td>Matter and Energy</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>Students learn the composition and behavior of matter, and how matter and energy are related. Students develop projects to understand how science applies to the real world. Matter and Energy is a foundation for all science courses.</td>
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<tr>
<td></td>
<td>NCAA 03159/1606</td>
<td></td>
</tr>
<tr>
<td>C264</td>
<td>Biology (Daily)</td>
<td>0.5 Science &amp; 0.5 Elective/sem</td>
</tr>
<tr>
<td></td>
<td>Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. Project-based learning allows students to connect learning to the real world. The Biology curriculum incorporates the Essential Knowledge and Performance Expectations described by the College Board to prepare students for success in Advanced Placement Biology. In Biology, students complete a research project, either independently, or as part of a team in order to gain additional experience with the practices of science. Biology is a graduation requirement for all students. Students enrolled in Biology must take and pass the High School Assessment in Biology.</td>
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<tr>
<td></td>
<td>NCAA 03051/1601</td>
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</tr>
<tr>
<td>C260</td>
<td>Biology</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. Project-based learning allows students to connect learning to the real world. Biology is a graduation requirement for all students. Students enrolled in Biology must take and pass the High School Assessment in Biology.</td>
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<tr>
<td></td>
<td>NCAA 03051/1601</td>
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</tr>
<tr>
<td>C267</td>
<td>Honors Biology</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. Project-based learning allows students to connect learning to the real world. The Honors Biology curriculum incorporates the Essential Knowledge and Performance Expectations described by the College Board to prepare students for success in Advanced Placement Biology. In Honors Biology, students complete a research project, either independently, or as part of a team in order to gain additional experience with the practices of science. Biology is a graduation requirement for all students. Students enrolled in Biology must take and pass the High School Assessment in Biology.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCAA 03051/1601</td>
<td></td>
</tr>
</tbody>
</table>
C30 | Earth/Space Systems Science  0.5/sem
Earth and Space Science courses introduce students to the study of the earth from a local and global perspective. Earth/Space Systems Science is a study of Earth—a complex and dynamic 4.6-billion-year-old system of rock, water, air, and life. A partnership with the NASA Goddard adds richness to the learning activities.
Prerequisites: Biology
NCAA  03008/1603

C33 | Forensic Science: CSI  0.5sem
Students use the principles of science, technology, and mathematics to investigate crime scenes. Students collect and analyze physical evidence. This course builds on a basic knowledge of biology, physical science, and computer technology. Because of the mature nature of crime scene subject matter, this course is recommended for upper classmen.
Prerequisites: Biology
NCAA  15053/0210

C36 | General Botany  0.5sem
Botany courses provide students with an understanding of plants, their life cycles, and their evolutionary relationships. Students study the specialized structures unique to plants. The lab portion emphasizes plant production and cultivation.
Prerequisites: Biology
NCAA DUAL  03058/1604

C41 | Honors Zoology  0.5/sem
Zoology courses provide students with an understanding of animals, the niches they occupy in their environment or habitat, their life cycles, and their evolutionary relationships to other organisms. In this course, students study the organisms of the animal kingdom. Students study animal systems through dissection and comparative analysis. Students who are opposed to laboratory dissection should consider choosing an alternate science course.
NCAA  03061/1604

C428 | AP Biology  0.5/sem
In AP Biology students develop a framework for biology and study biology by using the processes of science. This course focuses on broad concepts of biology and lab investigation. It is the equivalent of an introductory college biology course and prepares students for the Advanced Placement Test in Biology and the opportunity to earn college credit.
Prerequisites: Biology and Chemistry
NCAA  03056/1601

C426 | Seminar: AP Biology  0.5/sem
Students focus on enhancing the science skills and concepts that will support success in AP Biology, AP Chemistry, or AP Physics. This course is for students who need additional practice in the methods of scientific inquiry and mathematics to analyze core science concepts or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.
22005/2000

C40 | Human Anatomy Physiology  0.5sem
This course presents an in-depth study of the human body and examines all major systems, tissues, and muscle groups in the human body to help students understand how these systems interact and their role in maintaining homeostasis. In this rigorous course, students build on prior knowledge of the human body to investigate the role of systems from a chemical and physical perspective. Activities may involve animal dissection.
Prerequisites: Biology
NCAA DUAL  03053/1604

C450 | Chemistry  0.5/sem
Chemistry courses involve studying the composition, properties, and reactions of substances. Students learn how atoms combine to create all matter in the Universe. Students learn about states of matter and the structure of the atom. Each Chemistry unit ends with a project to allow students to apply their learning to how chemistry is used in the real world. Students use mathematics practices and computation to analyze chemical processes.
Prerequisites: Algebra 1 and Biology
NCAA  03101/1602

C457 | Honors Chemistry  0.5/sem
Chemistry courses involve studying the composition, properties, and reactions of substances. Students learn how atoms combine to create all matter in the Universe. Students learn about states of matter and the structure of the atom. Honors Chemistry uses Essential Knowledge and Performance Expectations from the College Board Standards to prepare students for Advanced Placement Chemistry. Each Chemistry unit ends with a project to allow students to apply their learning to how chemistry is used in the real world. Students use mathematics practices and computation to analyze chemical processes. Students enrolled in Honors Chemistry complete an independent or team research project based on science or engineering practices and the cross-cutting concepts that apply across all science disciplines.
Prerequisites: Algebra 1 and Biology
NCAA  03101/1602

C496 | Seminar: AP Chemistry  0.5/sem
Students focus on enhancing the science skills and concepts that will support success in AP Biology, AP Chemistry, or AP Physics. This course is for students who need additional practice in the methods of scientific inquiry and mathematics to analyze core science concepts or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course. Concurrent enrollment in the related AP science course.
22005/2000
This course continues independent research in Science with a focus on
engineering. Students will work in a small group to design a new or
technology according to the ExploraVision competition.
Prerequisites: Science Research 1

C568 | AP Physics 1 0.5/sem
Students learn the principles of physics equivalent to a first-semester
algebra-based college physics course. Topics include Newtonian
mechanics (including rotational dynamics and angular momentum);
work, energy, and power; mechanical waves and sound. Electric circuits
will also be introduced. This course prepares students for the Advanced
Placement Test in AP Physics 1 and the opportunity to earn college credit.
Prerequisites: Geometry and concurrent enrollment in Algebra 2

C566 | Seminar: AP Physics 1 0.5/sem

C576 | Seminar: AP Physics 2 0.5/sem

C70 | AP Physics 1 and 2 Combined 1.0/sem
AP Physics 1 is an algebra-based, introductory college-level physics
course that explores topics such as Newtonian mechanics (including
rotational motion); work, energy, and power; mechanical waves and
sound; and introductory, simple circuits. Through inquiry-based
learning, students will develop scientific critical thinking and reasoning
skills. AP Physics 2 is an algebra-based, introductory college-level
physics course that explores topics such as fluid statics and dynamics;
thermodynamics; electricity and magnetism; optics; atomic and
nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.
Prerequisites: Successful completion of or concurrent enrollment
in Pre-Calculus.

C598 | AP Physics C 0.5/sem
Students learn the principles of physics equivalent to a second-semester
college course in calculus-based physics. The course covers fluid
mechanics; thermodynamics; electricity and magnetism; optics; atomic
and nuclear physics. This course prepares students for the Advanced
Placement Tests in AP Physics C and the opportunity to earn college credit.
Prerequisites: Calculus or concurrent enrollment in Calculus

C557 | Honors Physics 0.5/sem
Physics courses involve the study of the forces and laws of nature
affecting matter, such as equilibrium, motion, momentum, and the
relationships between matter and energy. Students use the instruments
of science and principles of mathematics to learn how matter and
energy behave. Topics include forces, electricity and magnetism, heat,
waves, and theories of modern physics. Honors Physics incorporates Essential Knowledge and Performance
Expectations described by the College Board to prepare students for
success in AP Physics 1, 2 or C. Each unit concludes with a real world
project to help students make connections between what they study
and how physics applies in the real world.
Prerequisites: Algebra 1 and Biology

C550 | Physics 0.5/sem
Physics courses involve the study of the forces and laws of nature
affecting matter, such as equilibrium, motion, momentum, and the
relationships between matter and energy. Students use the instruments
of science and principles of mathematics to learn how matter and
energy behave. Topics include forces, electricity and magnetism, heat,
waves, and theories of modern physics. Each unit concludes with a real
world project to help students make connections between what they study
and how physics applies in the real world.
Prerequisites: Algebra 1 and Biology

C52 | Honors Science Research 2: Design 0.5sem
This course continues independent research in Science with a focus on
Engineering. Students will work in a small group to design a new or
technology according to the ExploraVision competition.
Prerequisites: Science Research 1

C53 | Honors Science Research 3: Project 0.5sem
Students complete an off-campus research project in an academic,
government, or corporate laboratory during the spring of the junior
year or the summer between the junior and senior year. Students will
do research in a lab working on their project during spring and summer.
Each student will seek a mentor to guide his or her research project. The
mentorship will be in a STEM area. Students should take this course in
the fall of their junior year.
Prerequisites: Science Research 2

C54 | Honors Science Research 4: Senior Seminar 0.5sem
Students return to school as seniors prepared to write a scientific paper
based on the work completed in the laboratory mentorship. Students
will enter one or more available STEM competitions to share their
research with peers and community members.
Prerequisites: Science Research 3

C50 | Science Research 1 0.5/sem
Students use the scientific method to solve problems. Students develop
skills in designing experiments, collecting, and analyzing data. Students
work individually or as part of a team to complete a research project
and enter the project in a science competition.

03211/1604

Prerequisites: Algebra 1 and Biology
Students focus on enhancing the science skills and concepts that will support success in AP Biology, AP Chemistry, or AP Physics. This course is for students who need additional practice in the methods of scientific inquiry and mathematics to analyze core science concepts or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisites: Concurrent enrollment in the related AP science course

**C65 | Environmental Science** 0.5sem

Environmental Science courses examine the mutual relationships between organisms and their environment. This course answers the question, how do living things in an ecosystem get the materials and energy they need? Students learn about the impact of living things on the environment and the impact of the environment on living things.

Prerequisites: Biology

NCAA DUAL 03003/1608

**C668 | AP Environmental Science** 0.5sem

In this course students evaluate environmental issues, and examine alternative solutions for resolving and/or preventing them. This course prepares students for the Advanced Placement Test in Environmental Science and the opportunity to earn college credit.

Prerequisites: Biology and Concurrent enrollment in Chemistry

NCAA 03207/1608

**C75 | Oceanography** 0.5sem

In this course students use the principles of chemistry and physics to study the oceans. Students investigate the materials and physical processes that have shaped oceans.

Prerequisites: Biology

NCAA DUAL 03049/1604

**C80 | Astronomy** 0.5sem

Astronomy courses offer students the opportunity to study the solar system, stars, galaxies, and interstellar bodies. Students learn about the large-scale structure of the universe, the history of the universe, and what scientists think will be the fate of the universe.

Prerequisites: Biology

NCAA 03004/1603

**C81 | Marine Biology** 0.5sem

Students use scientific skills and processes to study the marine world. Students analyze marine organisms and their environment, including the Chesapeake Bay and its tributaries.

Prerequisites: Biology

NCAA 03005/1604

**C87 | Department Aide—Science** 0.5sem

Science Aide courses offer students the opportunity to assist instructors in preparing and/or organizing. Students may provide tutorial or instructional assistance to other students.

03995/2000
## Social Studies

Social Studies courses draw upon the wealth of information and insight to be found in anthropology, history, psychology, economics, geography, political science, and sociology. The curriculum encourages students to apply the lessons of the past to the problems of the present, and to utilize investigation and problem-solving techniques to become vital participants in shaping and directing the future of our local, national, and world communities.

### Social Studies Graduation Requirements — 3 Credits
- History of the United States or AP United States History
- World History or AP World History
- U.S. Government or AP U.S. Government and Politics

### Required Assessments
All students, upon completion of U.S. Government or AP U.S. Government and Politics must take the HSA in Government.

Students who entered grade 9 in 2013–14 or later must pass the HSA in Government.

### B00 | US Government Bridge

This non-credit course offers students an opportunity to create projects to meet state testing requirements in US Government. Students must meet established criteria to participate in Bridge.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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### B01 | Maryland History

Students will examine political, economic and social events of Maryland from the colonial period to the present. This course is recommended for students interested in exploring American studies in detail.

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### B46 | Inquiry Into Community Problems

Students will study the structure and functioning of government at the local level. They will have the opportunity to interact with county officials to discuss the importance of involvement and civic responsibility at the local level. This course will also include a service learning component for students that need to complete this requirement. This course is recommended for students interested in exploring government, law, and leadership in detail and for any students that have not yet passed the Government HSA.

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### B11 | Honors Humanities

Students will study the art, literature, music and philosophy of European culture from the Classical Age through the Modern Era. Students will examine major works from the performing arts, fine arts, literature and philosophy and consider how these works were influenced by their historical, political and economic settings. This course is recommended for students interested in exploring global studies in detail.

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### B201 | History of the US

Students will concentrate on the historical period from the Progressive Era to the present. Students will use problem solving and critical thinking skills to identify major issues of the period and analyze their importance to us today. Topics of special interest will include the Depression, the Civil Rights Movement, the changing role of women, Vietnam, Watergate, Reaganomics, and the end of the Cold War. In this course, students will be expected to read and analyze primary source documents, including works of art, literature and music.

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### B207 | Honors History of the US

Students will concentrate on the historical period from the Progressive Era to the present. Students will use problem solving and critical thinking skills to identify major issues of the period and analyze their importance to us today. Topics of special interest will include the Depression, the Civil Rights Movement, the changing role of women, Vietnam, Watergate, Reaganomics, and the end of the Cold War. In this course, students will be expected to read and analyze primary source documents, including works of art, literature and music. For BMAH and STEM students, this course may be offered as a hybrid.

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### B290 | World History

Students will explore significant historical events and cultures in world history with an emphasis on understanding themes and analyzing historical evidence found among and between world civilizations. In order to understand the dynamics of modern world history and current global events, students will develop an understanding of how people have historically interacted economically, politically, culturally and militarily. Students will be expected to read and analyze primary source documents including works of art, literature and music in this course.

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### B297 | Honors World History

Students will explore significant historical events and cultures in world history with an emphasis on understanding themes and analyzing historical evidence found among and between world civilizations. In order to understand the dynamics of modern world history and current global events, students will develop an understanding of how people have historically interacted economically, politically, culturally and militarily. Students will be expected to read and analyze primary source documents including works of art, literature and music in this course.

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### B318 | AP World History

Students will develop greater understanding of the evolution of global processes and interaction through their study of world history from 8000 BCE to the present. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. This course prepares students for the Advanced Placement exam in World History. The successful completion of this course will meet the graduation requirement for world history. This course is recommended for students interested in exploring global studies in detail.

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### B316 | Seminar: AP World History

Students will develop their ability to function as independent learners in the Advanced Placement World History course. This course is recommended for students who require additional
practice, guidance and experiences beyond those available in the standard AP World History course or for students taking an AP Social Studies course for the first time.

22005/2000

B328 | AP U.S. Government & Politics 0.5/sem
This course provides students with an analytical perspective on government and politics in the United States. This course will prepare students for the Advanced Placement exam in U.S. Government and Politics. Students may take this course to meet the graduation requirement in U.S. Government and the opportunity to earn college credits. This course is recommended for students interested in exploring government, law, and leadership and American studies in detail.

NCAA 04157/1704

B326 | Seminar: AP U.S. Government & Politics 0.5/sem
Students will develop their ability to function as independent learners in the Advanced Placement U.S. Government and Politics course. This course is recommended for students who require additional practice, guidance and experiences beyond those available in the standard AP U.S. Government and Politics course or for students taking an AP Social Studies course for the first time.

22005/2000

B380 | US Government 0.5/sem
Students will study the structure and functions of government and politics in the United States, analyze the role of the U.S. government in world affairs, and how democratic principles and practices have evolved by studying Supreme Court cases, and civil and criminal law. They will investigate critical public issues, and apply what they have learned about government to the solving of real-world problems in their community-earning 20 hours toward their service learning graduation requirement.

NCAA 04151/1704

B387 | Honors US Government 0.5/sem
Students will study the structure and functions of government and politics in the United States, analyze the role of the U.S. government in world affairs, and how democratic principles and practices have evolved by studying Supreme Court cases, and civil and criminal law. They will investigate critical public issues, and apply what they have learned about government to the solving of real-world problems in their community-earning 20 hours toward their service learning graduation requirement. For STEM students, this course may be offered as a hybrid.

NCAA 04151/1704

B41 | Honors Social Issues 0.5sem
Students will analyze the causes of social problems which impact United States society. Issues of special concern will include the role of the family, crime, poverty, healthcare, and civil rights.

NCAA DUAL 04259/1707

B42 | AP Comparative Government & Politics 0.5/sem
Students will examine the models used to interpret political relationships and institutions found in national politics around the world in order to apply them to specific countries and their governments. This course will prepare students for the AP examination in Comparative Government and Politics and the opportunity to earn college credits. This course is recommended for students interested in exploring government, law, and leadership and American studies in detail.

NCAA 04158/1704

B43 | Honors Constitutional History & Law 0.5sem
Students will study significant Supreme Court cases in U.S. history for a better understanding of how the Constitution protects the liberties and rights of the people. Current issues being heard by the Supreme Court will be analyzed. This course is recommended for students interested in exploring government and law in detail.

NCAA 04166/1703

B45 | Criminal Justice 0.5sem
In this course, students will investigate issues of crime and justice, the police, the courts, corrections, and juvenile justice. This course is recommended for students interested in exploring government, law, and leadership in detail.

NCAA 15051/1707

B498 | AP European History 0.5/sem
Students will study the achievements and accomplishments of European civilization from 1450 to the present. Students will be expected to analyze issues in class and to be able to express their thoughts in a logical manner, both orally and in writing. This course will prepare students for the Advanced Placement exam in European History and the opportunity to earn college credits. This course is recommended for students interested in exploring European studies in detail.

NCAA 04056/1703

B496 | Seminar: AP European History 0.5/sem
Students will develop their ability to function as independent learners in the Advanced Placement European History course. This course is recommended for students who require additional practice, guidance and experiences beyond those available in the standard AP European History course or for students taking an AP Social Studies course for the first time.

22005/2000

B508 | AP US History 0.5/sem
Students will study United States history from the pre-colonial period to the present. Students will be expected to analyze issues in class and to be able to express their thoughts in a logical manner both orally and in writing. The successful completion of this course will meet the graduation requirement for United States History. This course will prepare students for the Advanced Placement exam in U.S. History and the opportunity to earn college credits.

NCAA 04104/1703

B506 | Seminar: AP US History 0.5/sem
Students will develop their ability to function as independent learners in the Advanced Placement United States History course. This course is recommended for students who require additional practice, guidance and experiences beyond those available in the standard AP United History course or for students taking an AP Social Studies course for the first time.

22005/2000

B51 | AP Economics—Macro 0.5sem
Macroeconomics includes the study of national income and price determination, and economic performance measures, economic growth, and international economics. Students will be expected to analyze issues in class and to be able to express their thoughts in a logical manner both orally and in writing. This course will prepare students for the Advanced Placement Examination in Macroeconomics and the opportunity to earn college credits.

NCAA 04204/1701
Judaism, Christianity, Buddhism, Hinduism and Islam. They will analyze similarities and differences among the beliefs and practices of these world religions. Students will be required to read primary source material, including religious texts, in this course. This course is recommended for students interested in exploring global studies in detail.

NCAA DUAL 04203/1701

**B52 | AP Economics—Micro** 0.5sem
Microeconomics includes the study of the principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the larger economic system; and the role of government in promoting greater efficiency and equity in the economy. Students will be expected to analyze issues in class and to be able to express their thoughts in a logical manner both orally and in writing. This course will prepare students for the Advanced Placement Examination in Microeconomics and the opportunity to earn college credits.

NCAA 04203/1701

**B55 | Honors Economics** 0.5sem
Students will study the principles of economics, including the concept of choice, supply and demand and the relationship of labor and management. Students will also develop an understanding of the role of government and international economic interdependence.

NCAA 04201/1701

**B59 | General Psychology** 0.5sem
Students will learn the research methods in psychology used to understand human behavior and development. They will learn about the physical systems of the body and how they affect emotions and behaviors as well as learning theories and social interaction.

NCAA DUAL 04254/1705

**B60 | Psychology of the Individual** 0.5sem
Students will study people and their interactions with others. They will discuss self concept, develop an understanding of how people function as individuals and as members of groups, and understand the impact of social institutions.

Prerequisites: General Psychology

NCAA 04255/1705

**B61 | AP Psychology** 0.5/sem
Students will study the behavior and mental processes of human beings. This includes the facts, principles, and phenomena associated with each of the major subfields in psychology. Students are expected to analyze issues in class and to be able to express their thoughts in a logical manner, both orally and in writing. This course will prepare students for the Advanced Placement exam in Psychology and the opportunity to earn college credits.

NCAA 04256/1705

**B62 | Sociology** 0.5sem
In this course, students investigate the field of Sociology: the study of social life, social change, and the social causes and consequences of human behavior. Students will use a social science research model to investigate contemporary American issues of social inequality, patterns of behavior, forces for social change and resistance, and how social systems work.

NCAA DUAL 04258/1707

**B69 | Honors Comparative Religions** 0.5sem
Students will study the beliefs of the world’s five major religious groups: Judaism, Christianity, Buddhism, Hinduism and Islam. They will analyze similarities and differences among the beliefs and practices of these world religions. Students will be required to read primary source material, including religious texts, in this course. This course is recommended for students interested in exploring global studies in detail.

NCAA 04252/1706

**B70 | Honors International Relations** 0.5sem
This course is for students with a strong interest in world affairs. Students will examine the actions of nations and analyze responses to these actions. Students will also recognize that decision-making is based on accurate information and knowledge of how to deal with particular world situations. This course is recommended for students interested in exploring global studies in detail.

NCAA DUAL 04155/1706

**B718 | AP Human Geography** 0.5/sem
Students investigate the nature, perspective and methods of geography, population, cultural patterns and processes, use maps and spatial data sets; define regions and evaluate the regionalization process; and characterize and analyze changing interconnections among places. This course will prepare students for the Advanced Placement exam in Human Geography and the opportunity to earn college credits. This course is recommended for students interested in exploring global studies in detail.

NCAA 04004/1702

**B716 | Seminar: AP Human Geography** 0.5/sem
This course offers AP Human Geography students the opportunity to improve research and investigatory skills, presentation skills, interpersonal skills, group process skills, and problem-solving and critical-thinking skills.

22106/2000

**B75 | Honors Women’s History** 0.5sem
Students will examine the changing roles of women in United States history. They will analyze the social, marital, economic, and legal-political status of women in different eras in U.S. history. Students will also investigate the causes and consequences of issues that affect women in contemporary American society (e.g. violence, poverty, education, equal opportunity). In this course, students will be expected to be able to read and analyze primary source documents, including works of art, literature and music. This course is recommended for students interested in exploring American studies in detail.

NCAA DUAL 04108/1703

**B77 | Honors African American History** 0.5sem
Through the investigation of local and national historic events, students will examine the achievements of African Americans in their struggle for political, economic, and social equality throughout American history. Students will also examine the achievements of African Americans in their struggle for political, economic, and social equality. Students will also investigate the causes of issues that continue to face African Americans in society today. Throughout the course students will read and analyze primary sources. This course is recommended for students interested in exploring American studies in detail.

NCAA DUAL 04107/1703

**B87 | Department Aide—Social Studies** No credit
Social Studies Aide courses offer students the opportunity to assist instructors in preparing and/or organizing. Students may provide tutorial or instructional assistance to other students.

04995/2000
World & Classical Languages

The changing nature of our society has placed greater demands on students. In order to succeed in the twenty-first century, they will be required to acquire new communication skills. The acquisition of other languages will enable students to communicate across cultures and gain knowledge of other cultures in order to interact effectively within the community and global marketplace.

All students are encouraged to elect one or more world languages in the course of their total education. Extended language study is strongly recommended.

The goals of the World and Classical Languages Program are:

- To develop students’ language skills to enable them to communicate effectively in a language other than English.
- To develop respect for other cultures.
- To develop a clearer understanding of their own linguistic and cultural heritage.
- To expose students to authentic resources to further develop and increase their ability to read, listen, speak, and write in the target language.

World & Classical Language Graduation Requirements

Students seeking to qualify for admission to Maryland colleges and universities must complete a minimum of two credits of the same World or Classical Language.

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**World & Classical Language Course Descriptions**

**E01 | American Sign Language 1** 0.5/sem

Designed to introduce students to American Sign Language, American Sign Language 1 courses enable students to communicate with deaf persons through finger spelling, signed words, and gestures. Course topics may include the culture of and issues facing deaf people.

NCAA DUAL 06801/1006

**E02 | American Sign Language 2** 0.5/sem

American Sign Language 2 courses build upon skills developed in American Sign Language 1, extending students’ ability to understand and express themselves in American Sign Language and increasing their vocabulary and speed. Typically, students learn how to engage in discourse for informative or social purposes and to comprehend the language when signed slowly.

NCAA 06802/1006

**E03 | Honors American Sign Language 3** 0.5/sem

American Sign Language 3 courses focus on having students express increasingly complex concepts while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when viewing the language signed at normal rates and conversing easily within limited situations.

NCAA 06803/1006

**E04 | Honors American Sign Language 4** 0.5/sem

American Sign Language 4 courses focus on advancing students’ skills and abilities to sign and understand the language so that they can maintain simple conversations with sufficient vocabulary and in an acceptable pace and have sufficient comprehension skills to understand the language when signed at a normal pace.

06804/1006

**E11 | French 1** 0.5/sem

Designed to introduce students to French language and culture, French 1 emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. French culture is introduced through the art, literature, customs, and history of the French-speaking people.

NCAA DUAL 06121/1001

**E12 | French 2** 0.5/sem

French 2 courses build upon skills developed in French 1, extending students’ ability to understand and express themselves in French and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of French-speaking people to deepen their understanding of the culture(s).

NCAA 06122/1001

**E13 | Honors French 3** 0.5/sem

French 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

NCAA 06123/1001

**E14 | Honors French 4** 0.5/sem

French 4 courses focus on advancing students’ skills and abilities to read, write, speak, and understand the French language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

NCAA 06124/1001

**E15 | AP French Language** 0.5/sem

Designed to parallel third-year college-level courses in French Composition and Conversation, AP French Language courses build upon prior knowledge and develop students’ ability to understand others and express themselves (in French) accurately, coherently,
and fluently. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

**E20 | Introductory Chinese | 0.5sem**
Chinese Conversation and Culture courses provide students with an introduction to the Chinese language and the culture(s) of Chinese-speaking people, placing greater emphasis on speaking and listening skills while de-emphasizing writing and reading the language.

**Prerequisites:** Introductory Chinese

**E21 | Chinese 1 | 1.0sem**
Designed to introduce students to Chinese language and culture, Chinese 1 courses emphasize basic syntax, simple vocabulary, written characters, and spoken tones so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Chinese culture is introduced through the art, literature, customs, and history of Chinese-speaking people.

**Prerequisites:** Introductory Chinese

**E22 | Chinese 2 | 0.5/sem**
Chinese 2 courses build upon skills developed in Chinese 1, extending students’ ability to understand and express themselves in Chinese and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and phrasing, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Chinese-speaking people to deepen their understanding of the culture(s).

**Prerequisites:** Chinese 1

**E23 | Honors Chinese 3 | 0.5/sem**
Chinese 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

**Prerequisites:** Chinese 2

**E24 | Honors Chinese 4 | 0.5/sem**
Chinese 4 courses focus on advancing students’ skills and abilities to read, write, speak, and understand the Chinese language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of language rules and a strong vocabulary.

**Prerequisites:** Chinese 3

**E25 | AP Chinese Language | 0.5/sem**
AP Chinese courses extend students’ facility with the language so that they are able to understand, initiate, and sustain general conversations on topics beyond basic survival needs. Reading and writing tasks will usually include all normal verb tenses (present, past, and future).

**Prerequisites:** Chinese 4

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**E31 | Latin 1 | 0.5/sem**
Latin 1 courses expose students to the Latin language and culture, emphasizing basic grammar and syntax, simple vocabulary, and the influence of Latin on current English words. Students will be able to read and write in Latin on a basic level.

**Prerequisites:** Latin 1

**E32 | Latin 2 | 0.5/sem**
Latin 2 courses enable students to expand upon what they have learned in Latin 1, increasing their skills and depth of knowledge through the practice of structures, forms, and vocabulary. Reading materials reflect Roman life and culture.

**Prerequisites:** Latin 1

**E33 | Honors Latin 3 | 0.5/sem**
Latin 3 courses build students’ knowledge of the Latin language and culture, typically focusing on having students express increasingly complex concepts in writing and comprehend and react to original Latin texts.

**Prerequisites:** Latin 2

**E34 | AP Latin Vergil | 0.5/sem**
Designed to parallel advanced college-level courses in Latin studies, AP Latin courses build upon and increase knowledge of Latin, enabling students to read the language with comprehension, to accurately translate Latin into English, and to appreciate the stylistic literary techniques used by the authors. AP Latin courses also include study of the political, social, and cultural background of the literary works and their authors, as well as their influence on later literature.

**Prerequisites:** Latin 3

**E41 | German 1 | 0.5/sem**
Designed to introduce students to German language and culture, German 1 courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. German culture is introduced through the art, literature, customs, and history of the German-speaking people.

**Prerequisites:** German 1

**E42 | German 2 | 0.5/sem**
German 2 courses build upon skills developed in German 1, extending students’ ability to understand and express themselves in German and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of German-speaking people to deepen their understanding of the culture(s).

**Prerequisites:** German 2

**E43 | Honors German 3 | 0.5/sem**
German 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.
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<td>Honors Italian 4</td>
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<tr>
<td>NCAA 06212/1002</td>
<td>AP Italian</td>
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<tr>
<td>NCAA 06661/1013</td>
<td>Honors Turkish 1</td>
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<tr>
<td>NCAA 06662/1013</td>
<td>AP German Language</td>
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**Honors Italian 4**

Emphasizes basic grammar and syntax, simple vocabulary and the spoken accent so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

**AP Italian**

Designed to introduce students to the Italian language and culture. Italian 1 courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

**Turkish 1**

Designed to introduce students to a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) and culture. Turkish/Ural-Altaic Language 1 courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions.

**Turkish 2**

Turkic/Ural-Altaic Language 2 courses build upon skills developed in Turkish/Ural-Altaic Language 1, extending students’ ability to understand and express themselves in a Turkic/Ural-Altaic language (e.g., Turkish, Finnish, and Hungarian) and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of appropriate people to deepen their understanding of the culture(s).

**Turkish 3**

Turkic/Ural-Altaic Language 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

**Turkish 4**

Turkic/Ural-Altaic Language 4 courses focus on advancing students’ skills and abilities to read, write, speak, and understand the language so that they can maintain conversation with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

**Spanish 1**

Designed to introduce students to Spanish language and culture. Spanish 1 courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.

**Spanish 2**

Spanish 2 courses build upon skills developed in Spanish 1, extending students’ ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the
rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s).

**E63 | Honors Spanish 3** 0.5/sem

Spanish 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

**NCAA 06102/1005**

**E64 | Honors Spanish 4** 0.5/sem

Spanish 4 courses focus on advancing students' skills and abilities to read, write, speak, and understand the Spanish language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

**NCAA 06103/1005**

**E65 | AP Spanish Language** 0.5/sem

Designed by the College Board to parallel third-year college-level courses in Spanish Composition and Conversation, AP Spanish Language courses build upon prior knowledge and develop students' ability to understand others and express themselves (in Spanish) accurately, coherently, and fluently in both formal and informal situations. Students will develop a vocabulary large enough to understand literary texts, magazine/newspaper articles, films and television productions, and so on.

**NCAA 06104/1005**

**E66 | Seminar: AP Spanish Language & Culture** 0.5/sem

Students focus on enhancing skills and concepts that will support success in AP Spanish Language & Culture. This course is for students who need additional practice in interpersonal, presentational and interpretive modes of communication in the target language. Concurrent enrollment in AP Spanish Language & Culture is required.

**NCAA 06112/1005**

**E67 | Arabic 1** 0.5/sem

Designed to introduce students to Arabic language and culture, Arabic 1 courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Arabic culture is introduced through the art, literature, customs, and history of the Arabic-speaking people.

**DUAL 06721/1008**

**E68 | Arabic 2** 0.5/sem

Arabic 2 courses build upon skills developed in Arabic 1, extending students' ability to understand and express themselves in Arabic and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Arabic-speaking people to deepen their understanding of the culture(s).

**06722/1008**

**E69 | Honors Arabic 3** 0.5/sem

Arabic 3 courses focus on having students express increasingly complex concepts both verbally and in writing while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when listening to the language spoken at normal rates, being able to paraphrase or summarize written passages, and conversing easily within limited situations.

**06723/1008**

**E70 | Honors Arabic 4** 0.5/sem

Arabic 4 courses focus on advancing students' skills and abilities to read, write, speak, and understand the Arabic language so that they can maintain simple conversations with sufficient vocabulary and an acceptable accent, have sufficient comprehension to understand speech spoken at a normal pace, read uncomplicated but authentic prose, and write narratives that indicate a good understanding of grammar and a strong vocabulary.

**06724/1008**

**E87 | Department Aide—World Languages** No credit

World Language and Literature Aide courses offer students the opportunity to assist instructors in preparing, organizing or delivering course curricula. Students may provide tutorial or instructional assistance to other students.

**06995/2000**
Certificate of Completion Courses

The following courses are designed to provide students with disabilities with specialized instruction in English, math, science, social studies, and vocational programs. These courses are designed to meet the Individualized Education Program (IEP) needs of students with disabilities and to provide credits toward graduation.

Maryland High School Certificate Requirements

Students must meet one of the following standards:

1. The student is enrolled in an education program for at least four years beyond grade eight, or its age equivalent, and the Individualized Education Program Committee determines that the student with disabilities has developed appropriate skills to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life. The world of work shall include, but not be limited to: gainful employment, work activity centers, sheltered workshops, and supported employment.

2. The student has been enrolled in an education program for four years beyond grade eight or its age equivalent and has reached age twenty-one.

The Alternative Curriculum Class

The Alternative Curriculum Class (ACC) is designed to provide specialized instructional and real life experiences to prepare students with significant disabilities for life beyond high school. The following courses are designed to provide these students with specialized instruction in English, science, social studies, and vocational programs. These courses are modified and designed to meet the Individualized Education Program (I.E.P.) needs of students with disabilities and to provide credits towards graduation.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N19</td>
<td>English/Reading 9–12</td>
<td>0.5/sem</td>
<td>This course will develop skills in listening, speaking, reading, and writing, as specified in the Individualized Education Program for each student enrolled to fulfill course requirements for graduation. Students in grades 11–12 focus on listening, speaking, reading, and writing as it relates to the transition to adulthood.</td>
</tr>
<tr>
<td>N29</td>
<td>Mathematics 9–12</td>
<td>0.5/sem</td>
<td>This course will develop skills in basic mathematical concepts and real world problem solving as specified in the Individualized Education Program for each student enrolled to fulfill course requirements for graduation.</td>
</tr>
<tr>
<td>N39</td>
<td>Social Studies 9–12</td>
<td>0.5/sem</td>
<td>Students will study information related to history, economics, geography, and government.</td>
</tr>
<tr>
<td>N49</td>
<td>Science 9–10</td>
<td>0.5/sem</td>
<td>Students will study the relationship of organisms to other organisms in their environment. Students will study scientific skills, processes, and concepts of Biology using modified texts and materials.</td>
</tr>
<tr>
<td>N61</td>
<td>Coping Skills</td>
<td>0.5/sem</td>
<td>This course teaches students the social skills needed for independent functioning within the community. Topics may include self-control, self-expression, obeying rules, decision-making, appropriate situational behavior, interacting with others, and maintaining relationships. Students may develop independence, self-confidence, and self-reliance.</td>
</tr>
<tr>
<td>N62</td>
<td>Learning Strategies</td>
<td>0.5/sem</td>
<td>This course prepares students for success in high school and/or for postsecondary education. Course topics may vary according to the students involved, but typically include reading improvement skills, such as scanning, note-taking, and outlining; library and research skills; listening and note-taking; vocabulary skills; and test-taking skills. This course may also include exercises designed to generate organized, logical thinking and writing.</td>
</tr>
<tr>
<td>N730</td>
<td>Community Skills 9–12</td>
<td>0.5/sem</td>
<td>This course provides students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize goal setting, decision-making, and setting priorities; money and time management; relationships; and the development of self.</td>
</tr>
<tr>
<td>N950</td>
<td>Community Vocational Program 11–12</td>
<td>No Credit</td>
<td>This course provides students with work experience in a field related to their interests. Goals are typically set cooperatively with teacher, student, and employer. This course may include classroom activities as well, involving further discussion regarding experiences that students encounter in the workplace.</td>
</tr>
</tbody>
</table>
Interdisciplinary Courses

X01 | **Office Aide** | No Credit
Office Aide courses offer students the opportunity to assist in preparing, organizing or delivering materials to teachers and/or students.
22051/2000

X02 | **Media Aide** | No Credit
Media Aide courses offer students the opportunity to assist in preparing, organizing or delivering materials to teachers and/or students.
22053/2000

X04 | **Guidance Aide** | No Credit
Guidance Aide courses offer students the opportunity to assist in preparing, organizing or delivering materials to teachers and/or students.
22052/2000

X20 | **Alternative Credit** | 0.5/sem
This offering includes all individual work-study programs and experiences occurring outside the school which award credit towards graduation but do not result in money payment to the student. Plans for alternative credit experiences can originate with the student, teacher, a community group or individual. Alternative credit experiences of particular note are those leading to community service and accelerated research study through the Gifted/Talented Mentorship Program. Community service credit may be used to meet the one credit Practical Arts requirement. Alternative credit is elective in nature and usually awarded as alternative credit in a particular content area. It is important that these experiences match well with the student’s general education plan and interests. Students interested in alternative credit should seek the advice of a counselor.
22997/2000

X21 | **Gifted & Talented Mentorship** | 0.5/sem
Tutoring Practicum courses provide students with the opportunity to offer tutorial assistance to their peers or to younger students. After an initial training period during which students learn how to work with other students and how to make use of the available resources (e.g., staff, written material, audiovisual aids, and so on), students engage in tutoring and assisting others who need or request help.
22054/2000

X40 | **PSAT/SAT Preparation** | 0.5/sem
Students in grades 10-12 prepare for the New PSAT and the SAT by developing and applying strategies to strengthen critical reading, writing, and mathematical abilities and test-taking skills. Through focused instruction, practice with actual test items, and independent activities, students diagnose their individual needs and implement a program to improve their immediate scores and their greater academic performance in high school and beyond.
Prerequisites: Algebra I
22001/2000

X41 | **Preparing for the ACT** | 0.5/sem
Students will prepare for the ACT by developing test-taking skills required for successful completion of this test. Through focused instruction, practice with actual test items, and independent activities, students diagnose their individual needs and implement a program to improve their immediate scores and their greater academic performance in high school and in college.
Prerequisites: Algebra I, Geometry, Biology
22001/2000

X42/3/4 | **Student Leadership 1/2/3** | 0.5/sem
In this class, students will explore leadership traits and characteristics, goal setting, decision-making, communication and listening skills, conflict resolution and problem solving, group work and team building, meeting skills, project planning, financial literacy, ethics, organizational skills, critical thinking skills and civic responsibility. Students will study, practice and develop the processes associated with individual and group leadership. This class would develop and evaluate leadership traits and characteristics through a leadership-in-action model.
22207/2000

X43 | **Financial Literacy** | 0.5/sem
In this class, students will study the practical and real-life applications of economic theory through consumer decision making. Consumer saving, investing, budgeting, use of credit, insurance, housing, career choice, insurances, retirement and estate planning will be investigated.
22210/2000

X45–9/0/1/2 | **Student Seminar 9/10/11/12** | 0.25/sem
The major theme of Student Seminar is to help students with the numerous decisions that must be made in their educational and career development. Student Seminar addresses five major skill areas: Self-Knowledge, Life Skills, Educational Development, Work Ethics and Career Planning. The activities contained in these five areas have been developed in accordance with the Maryland School-To-Work initiative.
22106/2000

X46–9/0/1/2 | **Student Seminar 9 /10/11/12** | 0.5/sem
The major theme of Student Seminar is to help students with the numerous decisions that must be made in their educational and career development. Student Seminar addresses five major skill areas: Self-Knowledge, Life Skills, Educational Development, Work Ethics and Career Planning. The activities contained in these five areas have been developed in accordance with the Maryland School-To-Work initiative.
22106/2000

X03 | **Innovation through Project-Based Learning 9** | 1.0/sem
This course will engage students in a project based learning approach (PBL) while providing a pathway to a vibrant venue for applying content standards relevant to student’s lives. Students will work collaboratively with their teachers, peers and community partners to create projects that take into account student interests and align with content standards. While focusing on an end product, course standards are extended and applied as students become engaged in their learning. Students will complete problem/project-based modules focused on a current STEM and Humanities topic or project that is relevant in today’s workplace/world. This course will expose students to and develop skills in Problem/Project based learning, Socratic Dialogue, and collaborative teamwork. Once students complete a project, it will be presented to a public audience. This course will enable students to make the connection between relevant real world experiences and core subject areas, preparing them to gain important work and life skills. Available only at Mary Moss at J Albert Adams Academy and will be graded using S or U.
00000/2000
AVID, Advancement Via Individual Determination, is a college readiness system for elementary through higher education that is designed to increase school-wide learning and performance. Although AVID serves all students, the AVID elective focuses on the least-served students in the academic middle who have the desire to go to college and the willingness to work hard. AVID pulls these students out of their unchallenging courses and puts them on the college track: acceleration instead of remediation. The formula is simple — raise expectations of students and, with the AVID support system in place, they will rise to the challenge. At the secondary grade levels (6th–12th grades), AVID is an academic elective course taken during the school day. Students are usually selected to enroll in an AVID class after an application process. Students learn organizational and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable. Students enrolled in AVID are typically required to enroll in at least one of their school’s toughest classes, such as honors or Advanced Placement, in addition to the AVID elective.

Students may wear an AVID cord during graduation if the following requirements are met.

1. Take an AP exam.
2. Take the SAT or ACT.
3. Complete the senior AVID data and submit it to the AVID Center on time.
4. Spend at least three high school years in the AVID elective. These do not need to be consecutive, but your third year must be your senior year.
5. Apply and be accepted into at least one four-year college.
6. Have an unweighted GPA of at least 2.75.

The AVID elective provides a strong, relevant writing and reading curriculum, study skills, assistance with organization and time management, college research, and tutoring. Students will develop their organizational skills using the AVID Binder, participate in rigorous tutorials aimed at improving inquiry and collaboration techniques, and improve their knowledge of subject matter in all academic classes through the use of Cornell notes. AVID 9 serves as a transition from middle school to high school where students will continue their focus on acceptance into a four-year college or university of their choice. Students in AVID 9 are expected to prepare for a rigorous high school schedule that includes challenging honors and AP courses.

**AVID Tutor 1. – 2**

X30 | AVID Tutor 1. – 2 0.5/sem

The AVID (Advancement Via Individual Determination) academic elective class utilizes trained tutors to guide the AVID students toward academic and personal excellence. Tutors are active participants in the learning, growth, and personal development of the AVID students. Juniors and seniors may apply to become AVID Tutors by meeting with the AVID Site Coordinator and completing a request for alternative credit.

**AVID 9**

K19 | AVID 9 0.5/sem

**AVID 10**

K20 | AVID 10 0.5/sem

**AVID 11**

K21 | AVID 11 0.5/sem

**AVID 12**

K22 | AVID 12 0.5/sem

The AVID elective provides a strong, relevant writing and reading curriculum, study skills, assistance with organization and time management, college research, and tutoring. AVID 10 builds upon the skills and techniques developed in AVID 6-10, by working towards the ultimate goal of college acceptance. To this end, students receive support preparing for their SAT/ACT tests, finding and narrowing down their best fit colleges, writing their college essay, and preparing for senior year. Students also receive support for their honors and Advanced Placement courses and skills and strategies to prepare for the academic rigors of college as well as support selecting appropriate courses to best prepare students for college.

The AVID elective provides a strong, relevant writing and reading curriculum, study skills, assistance with organization and time management, college research, and tutoring. AVID 11 builds upon the skills and techniques developed in AVID 6-11, by working towards the ultimate goal of college acceptance. To this end, students receive support filling out college applications, building resumes, finding scholarships, and preparing for the transition from high school to college. Students also receive support for their honors and Advanced Placement courses and acquire skills and strategies to prepare for the academic rigors of college. Students in AVID 12 are expected to apply to four-year colleges or universities, find and apply to scholarships, and research possible majors and careers.
### Army Junior Reserve Officers Training Corps (AJROTC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Program</th>
<th>Hours per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>X50</td>
<td>Navy Junior ROTC 1</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Naval Junior Reserve Officers Training Corps (NJROTC) program is offered to students in grades 9–12. These courses, available at Annapolis High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as maritime heritage, the significance of sea power, and naval topics such as navigation and meteorology. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09101/2000</td>
</tr>
<tr>
<td>X51</td>
<td>Navy Junior ROTC 2</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Naval Junior Reserve Officers Training Corps (NJROTC) program is offered to students in grades 9–12. These courses, available at Annapolis High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as maritime heritage, the significance of sea power, and naval topics such as navigation and meteorology. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09102/2000</td>
</tr>
<tr>
<td>X52</td>
<td>Navy Junior ROTC 3</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Naval Junior Reserve Officers Training Corps (NJROTC) program is offered to students in grades 9–12. These courses, available at Annapolis High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as maritime heritage, the significance of sea power, and naval topics such as navigation and meteorology. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09103/2000</td>
</tr>
<tr>
<td>X53</td>
<td>Navy Junior ROTC 4</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Naval Junior Reserve Officers Training Corps (NJROTC) program is offered to students in grades 9–12. These courses, available at Annapolis High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as maritime heritage, the significance of sea power, and naval topics such as navigation and meteorology. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09104/2000</td>
</tr>
<tr>
<td>X54</td>
<td>Army Junior ROTC 1</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Army Junior Reserve Officers Training Corps (AJROTC) program is offered to students in grades 9–12. These courses, available at Meade High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as maritime heritage, the significance of sea power, and naval topics such as navigation and meteorology. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09051/2000</td>
</tr>
</tbody>
</table>

### Navy Junior Reserve Officers Training Corps (NJROTC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Program</th>
<th>Hours per Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>X56</td>
<td>Army Junior ROTC 2</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Army Junior Reserve Officers Training Corps (AJROTC) program is offered to students in grades 9–12. These courses, available at Meade High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as fitness, first aid, wellness, geography, map skills, environmental awareness, and American Government and History. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09052/2000</td>
</tr>
<tr>
<td>X57</td>
<td>Army Junior ROTC 3</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Army Junior Reserve Officers Training Corps (AJROTC) program is offered to students in grades 9–12. These courses, available at Meade High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as fitness, first aid, wellness, geography, map skills, environmental awareness, and American Government and History. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09053/2000</td>
</tr>
<tr>
<td>X58</td>
<td>Army Junior ROTC 4</td>
<td>0.5/sem</td>
</tr>
<tr>
<td></td>
<td>The Army Junior Reserve Officers Training Corps (AJROTC) program is offered to students in grades 9–12. These courses, available at Meade High School, prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The courses consist of three areas of emphasis: Leadership, Education, and Training as well as fitness, first aid, wellness, geography, map skills, environmental awareness, and American Government and History. All uniforms, texts, insignia, and training materials are provided.</td>
<td>09054/2000</td>
</tr>
<tr>
<td>X66</td>
<td>Marine Corps Junior ROTC Level 1</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>X67</td>
<td>Marine Corps Junior ROTC Level 2</td>
<td>0.5/sem</td>
</tr>
<tr>
<td>X68</td>
<td>Marine Corps Junior ROTC Level 3</td>
<td>0.5/sem</td>
</tr>
</tbody>
</table>
national security, encourages self-discipline, and develops respect for authority. This program addresses leadership skills, goal setting, perseverance, and achievement.

The mission of the Marine Corps Junior ROTC is to instill a value of citizenship, service to the United States, personal responsibility, and a sense of accomplishment. It does not seek any particular commitment to the military. The JROTC program strengthens character, promotes an understanding of the requirements for national security, encourages self-discipline, and develops respect for authority. This program addresses leadership skills, goal setting, perseverance, and achievement.

The Magnet Programs in Anne Arundel County support the shared Programs of Choice vision to offer all students and families choice in their education.

Students apply online to participate in a Magnet Program and if selected and accepted, attend school at their Magnet School, located at one of the public schools in the county. The Magnet School is determined by program and students’ home school. Students entering high school may apply for one of the following Magnet Programs in AACPS:

- BioMedical/Allied Health (BMAH) at Glen Burnie High School;
- Centers for Applied Technology (CAT) at CAT-North and CAT-South;
- International Baccalaureate Programme (IB/MYP) at Annapolis High School, Old Mill High School, and Meade High School;
- Performing and Visual Arts (PVA) at Annapolis High School and Broadneck High School;
- Science Technology Engineering and Mathematics (STEM) at North County High School and South River High School.

**BMAH**

**BioMedical Allied Health**

Glen Burnie High School

The BMAH Magnet program is an educational choice for highly motivated and academically eligible students that are interested in exploring career and research opportunities across the healthcare spectrum. In conjunction with excellent coursework options, students will work with medical and allied health professionals both in and out of the classroom through relevant and hands-on problem/project based modules, job shadows and internship opportunities.

The BMAH Magnet Program offers five pathways that students may pursue: Project Lead the Way Bioengineering, Project Lead the Way Bioscience, Aging and Wellness, Health, Information, and Technology, and Public and International Health. Juniors and seniors will have the opportunity to attend Anne Arundel Community College for dual enrollment, allowing students to gain college credit towards a degree, certificate, or letter of recognition while still completing their high school graduation requirements. Upon graduation, students will be ready to enter...
the healthcare workforce directly or to continue their education along their chosen allied health pathway or other healthcare major at a four-year college or university. BMAH courses are only available to students enrolled in the BMAH Magnet Program.

C155  |  BMAH Public/Intern Health 1  |  0.5sem
BMAH Public & International Health 1 is an 11th grade BMAH Pathway 2 course for the Advanced Learner in the BMAH Magnet program. It is the first in a series of three courses in the Public and International Health Pathway. In this course, students will explore how the public health sector works to improve human health through the development and application of knowledge that prevents disease, protects the public from harm, and promotes health throughout the state, nation, and the world. Immersed in problem-based learning and critical thinking, students in this first of three one-semester courses, will develop and apply knowledge from multiple disciplines to explore the origins of public health, public health policies, the agencies involved in the public health sector, and local, national and global issues with a focus on Nutrition and Social Behavior.
14155/0205

C165  |  BMAH Public/Intern Health 2  |  0.5sem
BMAH Public & International Health 2 is an 11th grade BMAH Pathway 2 course for the Advanced Learner in the BMAH Magnet program. It is the second in a series of three courses in the Public and International Health Pathway. In this course, students will explore how the public health sector works to improve human health through the development and application of knowledge that prevents disease, protects the public from harm, and promotes health throughout the state, nation, and the world. Immersed in problem-based learning and critical thinking, students in this second of three one-semester courses, will develop and apply knowledge from multiple disciplines to explore the financial issues in health services and public health systems, explore the legal and ethical issues involving race, ethnicity, and poverty related to health disparities, evaluate the planning and marketing of health safety and preparedness in the public health sector regarding local, national and global issues with a focus on Epidemics and Health Systems.
14155/0205

C18  |  Honors BMAH Aging/Wellness 1  |  0.5sem
Students will analyze literature and conduct research on the genetic, biological, clinical, behavioral, social, psychological, and economic aspects of aging. Aging populations’ health issues affected by race, ethnicity, gender, socioeconomic status (SES), age, education, occupation, and other, as yet unknown, lifetime and lifestyle differences will be studied. Students will use research insights and advances to influence policy on the health, wellness, economic status, and quality of life of all aging adults. Immersed in problem based learning and critical thinking, students will develop and apply knowledge from multiple disciplines to explore the event of aging, common illnesses, physiological problems, and the mental and social aspects involved in aging. Students will also explore how the health system engages with aging populations.
14251/0205

C19  |  BMAH Aging/Wellness 2  |  0.5sem
Students will continue to analyze literature and conduct research on the genetic, biological, clinical, behavioral, social, psychological, and economic aspects of aging. Aging populations’ health issues affected by race, ethnicity, gender, socioeconomic status (SES), age, education, occupation, and other, as yet unknown, lifetime and lifestyle differences will be studied. Students will use re-search insights and advances to influence policy on the health, wellness, economic status, and quality of life of all aging adults. Immersed in problem based learning and critical thinking, students will develop and apply knowledge from multiple disciplines to explore the event of aging, common illnesses, physiological problems, and the mental and social aspects involved in aging. Students will also explore how the health system engages with aging populations.
14251/0205

C20  |  BMAH Capstone Research  |  0.5/sem
BMAH Research/Data Analysis (Capstone) is a STEM/BMAH Capstone course for seniors and is designed to support student exploration and research in an area of the student’s choosing. This may be a continuation of, extension of, and/or inspired by problems and/or projects explored via Problem Based Learning 3: Community Challenge and/or Internship experience. Students will be expected to write and submit a professional paper (White Paper), create and present a Scientific Poster, and formally present their experience and/or findings. Students will develop project management skills as they apply to their year-long endeavor, with daily updates and modifications to their plan. In this interdisciplinary course, students will have the opportunity to receive mentoring from professional BMAH-ists, support from a BMAH teacher.
14251/0205

Q60  |  Honors BMAH Health Information Systems  |  0.5sem
This course is paired with Health Database Management to complete the BMAH Pathway 1 year course. Health Information Systems is a tool for collecting and processing vital data from multiple sources and is used to make policy and manage healthcare services. In this course, students will work in teams on analyzing the Health Information Systems that exist in developed versus developing countries. Students will use real world data available from such resources as the World Bank, Organization for Economic Cooperation and Development—Health Statistics and the World Health Organization—Data and Statistics. Students will analyze the impact of Health Information Systems on a country’s educational, financial, and political status. Students will design and use database structures to produce data-based briefs, data-driven arguments and presentations related to targeted health issues.
10199/0205

X13  |  Medical Rounds 1 (BMAH)  |  0.25/sem
Students will work with BMAH business and higher-education partners on three, six, or nine week problem/project-based modules focused on a current BMAH topic or project that is relevant in today’s workplace. This course will introduce students to the main philosophical pillars of the BMAH program: Problem/Project based learning (open-ended projects with real-world connections), Socratic Dialogue (strategic way of communicating to better understand what others are thinking), and collaborative teamwork.
14151/2000

X14  |  Medical Rounds 2 (BMAH)  |  0.25/sem
Students will work with BMAH business and higher-education partners on three, six, or nine week problem/project-based modules focused on a current BMAH topic or project that is relevant in today’s workplace. This course will continue to expose students to the main philosophical pillars of the BMAH program: Problem/Project based learning, Socratic Dialogue, and collaborative teamwork
Prerequisites: Medical Rounds 1
14151/2000

M39  |  Biomedical Innovations  |  0.5/sem
14264/0205
CAT Students may be selected for National Technical Honor Society membership which recognizes excellence in Career and Technology Education. CAT Students may join SkillsUSA, a national leadership organization for CTE students. Members have the opportunity to develop leadership skills and to compete in program related skill areas at the regional/state/national level. CAT graduates are focused on their future. They have the skills and training needed to enter the workforce, but they also have a clear picture of how continuing education beyond high school will lead to advancement within their chosen career field. For specific program details see the completer program section beginning on page 85.

In this course students will study how the health care industry, government organizations, and associated organizations use information technology to research and analyze healthcare patient data as well as local, regional, national, and international health data trends and patterns. Students will work in teams on real world healthcare issues, using multiple software programs to collect, collate, and analyze data. Databases from the World Health Organization (WHO), National Institutes of Health (NIH), Centers for Disease Control (CDC), Organization for Economic Co-Operation and Development (OECD), and the United Nations International Children’s Emergency Fund (UNICEF) provide the rich healthcare datasets from which the students will do their project-based/problem-based work.

CAT

Centers of Applied Technology
Center of Applied Technology North & South

The CAT Magnet program is an educational choice that allows students to be both career and college ready. Students have the opportunity to add value to their overall education by earning industry-recognized certifications and college credit while still in high school. Students who complete a CAT program fulfill the completer path needed for graduation. Additionally, since most of the CAT magnet programs are two year programs, many students complete coursework necessary to be career completers as well college completers (DUAL completers).

The CAT centers offer 25 different Career and Technology Education (CTE) programs which are guided by industry standards and are embedded in a framework of career clusters key to Maryland’s economy.

Arts, Media and Communication
- Interactive Media Production
- Graphic Design
- Printing Technology

Construction and Development
- Building Maintenance and Business Support
- Carpentry
- Drafting/CAD
- Electricity
- Heating, Ventilation, and Air Conditioning (HVAC)
- Masonry
- Plumbing
- Welding

Consumer Services, Hospitality and Tourism
- Baking and Pastry
- Cosmetology
- Culinary Arts

Environmental, Agriculture, and Natural Resources
- Environmental Resource Management

Health and Biosciences
- Academy of Health Professionals
- Dental Assisting

Information Technology
- Cisco Academy
- Network Systems Administration

Manufacturing, Engineering and Technology
- Precision Machining

Transportation Technology
- Automotive Collision Repair/Refinishing
- Automotive Technology
- Diesel Power Technology
- Marine Repair Technology
- Motorcycle Repair

CAT Students may be selected for National Technical Honor Society membership which recognizes excellence in Career and Technology Education. CAT Students may join SkillsUSA, a national leadership organization for CTE students. Members have the opportunity to develop leadership skills and to compete in program related skill areas at the regional/state/national level. CAT graduates are focused on their future. They have the skills and training needed to enter the workforce, but they also have a clear picture of how continuing education beyond high school will lead to advancement within their chosen career field. For specific program details see the completer program section beginning on page 85.

Career Exploration 0.5/sem
Career Explorations provides students with an opportunity to experience four career programs during the course of one semester. Although this course is not required for acceptance into a Level One Magnet program, it allows students to explore possible areas of career interest before applying to a Level One program. This course is open to students in grades 9 and 10.

Technical Mathematics 0.5/sem
Many programs offered at the Centers of Applied Technology provide students with an opportunity to earn one mathematics elective credit towards graduation. The curriculum for each program is designed to prepare students to meet industry certification standards, and incorporates the mathematical practices that students will utilize in their chosen industry.

Foundations of Patient Care 0.5/sem
In this course, students learn the foundation of skills and health concepts as it relates to pursuing a career in health care. Students will participate in a variety of hands-on lab settings learning about the equipment, materials, and safety rules used in the delivery of essential health care services. Fundamentals of medical terminology, body systems, infection control and legal issues in health care are covered in this course. Students learn introductory health care record documentation skills and anthropometric conversions. The information gained can be of significant value in career planning and expanding a student’s interests and abilities. Available only at CAT-South.
The International Baccalaureate Program

Annapolis, Meade, and Old Mill High Schools

The International Baccalaureate is a globally-recognized educational foundation committed to creating a better world through education. Its teaching methodology promotes student-centered inquiry, critical thinking, and effective communication while challenging students to consider their role in both local and global communities. Annapolis, Meade, and Old Mill High Schools are all authorized by the IB Organization.

Students attend the IB Middle Years Programme (MYP) in grades 9 and 10. Students who have applied and been accepted into the IB Diploma Programme (DP) will complete the IB DP course of studies in grades 11 and 12. IB Diploma students will complete a Theory of Knowledge course, an Extended Essay of 4,000 words, and approximately 150 Creativity, Action, Service (CAS) hours as well as six subject exams. Students who meet all of these requirements and successfully complete all IB assessments and examinations will be eligible for the IB Diploma, recognized by colleges and universities in countries around the world. Upon graduation, all IB students will be prepared to continue their studies at a four-year institution of higher learning.

IB MYP courses are available to all students at Annapolis, Meade, and Old Mill High Schools. IB DP courses are only available to students enrolled in the IB DP Magnet Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Fees</th>
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<tbody>
<tr>
<td><strong>IB English 1—Language and Literature</strong></td>
<td>0.5/sem</td>
</tr>
<tr>
<td>Students apply critical and analytical skills to works of traditional and contemporary world authors. Because the themes of the literature explore values and issues of the world-wide culture, the voice of each author may give frank examination of the human condition. Students complete all internal and external assessments as required.</td>
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<tr>
<td><strong>Prerequisites:</strong> Placement in the IB Diploma Programme and successful completion of IB English 1</td>
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<tr>
<td><strong>IB Theatre Arts 1</strong></td>
<td>0.5/sem</td>
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<tr>
<td>This course is designed to encourage students to examine theatre in its diversity of forms from around the world. Theatre Arts 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. A further challenge for students taking this course is for the to become aware of their own perspectives and biases and to learn to understand the values of others.</td>
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<tr>
<td><strong>IB World Religions</strong></td>
<td>0.5/sem</td>
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<tr>
<td>The Diploma Programme World Religions course is a systematic, analytical yet empathetic study of the variety of beliefs and practices encountered in nine main religions of the world. The course seeks to promote an awareness of religious issues in the contemporary world by requiring the study of a diverse range of religions.</td>
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<tr>
<td><strong>IB Economics</strong></td>
<td>0.5/sem</td>
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<tr>
<td>This course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum—rather; they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability. The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values. This course encourages students to develop international perspectives, fosters a concern for global issues, and raises students’ awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.</td>
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</tbody>
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Students will concentrate on the historical period of the United States from the late 19th century to the present. Students will use problem solving and critical-thinking skills to identify major issues of the period and analyze their importance to us today. Topics of special interest will include the Depression, the Civil Rights Movement, the changing role of women, Vietnam, Watergate and Reaganomics, and the end of the Cold War. In this course, students will be expected to read and analyze primary source documents, including works of art, literature and music. Students in MYP History of the United States receive an early comprehensive preparation for success in subsequent IB History courses. 

Prerequisites: Placement in the Middle Years Programme

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<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>04054/1704</td>
<td>IB History 1</td>
<td>Placement in the Middle Years Programme</td>
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<tr>
<td>04054/1703</td>
<td>IB History 2</td>
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<tr>
<td>04304/2000</td>
<td>IB Theory of Knowledge 1</td>
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</tr>
<tr>
<td>04304/2000</td>
<td>IB Theory of Knowledge 2</td>
<td></td>
</tr>
<tr>
<td>03057/1601</td>
<td>Honors IBMYP Biology</td>
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<tr>
<td>04304/2000</td>
<td>Honors IBMYP US History</td>
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<tr>
<td>03057/1601</td>
<td>Honors IBMYP American Government</td>
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<tr>
<td>04304/2000</td>
<td>IB Psychology 1</td>
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<tr>
<td>04304/2000</td>
<td>IB Biology 1</td>
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<tr>
<td>03057/1601</td>
<td>IB Psychology 2</td>
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<tr>
<td>03057/1601</td>
<td>IB Biology 2</td>
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</tbody>
</table>
This course will expand students’ knowledge of functions to include exponential, logarithmic and power functions by examining real-world problems. Students will gain an understanding of the characteristics and transformation of function. Graphing calculators are required.
IBMYP French Level 2 0.5/sem
This course continues the development of the students’ communicative competency and linguistic accuracy while expanding the students’ awareness and appreciation within the Francophone culture. Classes are conducted in French. Students in an MYP Level 2 language receive early comprehensive preparation for success in subsequent IB language courses.

Honors IBMYP French Level 3 0.5/sem
This course expands and refines the students’ linguistic accuracy and increases their ability to function appropriately within the Francophone culture. Emphasis is on developing the students’ ability to use their French language skills to make decisions, solve problems, investigate topics and create new products in real life situations. Students receive early comprehensive preparation for subsequent IB Language courses. Interaction with the IB assessment criteria and increasing oral discourse are emphasized in this course. Classes are conducted in the target language.

IB DP French 1 0.5/sem

IB DP French 2 0.5/sem

IBMYP Spanish Level 2 0.5/sem

Honors IBMYP Spanish Level 3 0.5/sem

IB DP Spanish 1 0.5/sem

IB DP Spanish 2 0.5/sem

IB DP Language B Italian 1 0.5/sem

IB DP Language B Italian 2 0.5/sem

IB DP Language B Arabic 1 0.5/sem
IB DP Language B Arabic 1 is an additional language-learning course designed for students who have studied Arabic and successfully completed levels 3 or higher, and who are admitted in the IB Diploma Programme.

IB Music 1 0.5/sem
IB Music courses prepare students to take the International Baccalaureate Music exam at either the Standard or Higher level. IB Music courses develop students’ knowledge and understanding of music through training in musical skills (listening, performing, and composing); exposure to music theory; and formulation of an historic and global awareness of musical forms and styles. Historical, theoretical, and practical studies are suggested by the IB Curriculum Board.

IB Music 2 0.5/sem

IB Dance 1 0.5/sem
Consistent with the educational philosophy of the IB, the Diploma Programme dance curriculum aims for a holistic approach to dance, and embraces a variety of dance traditions and cultures. Performance, creative, and analytical skills are mutually developed and valued whether the students are writing papers or creating/perform.

IB Dance 2 0.5/sem

IB Art 1 0.5/sem
IB Art/Design courses prepare students to take the International Baccalaureate Art/Design exams at either the Standard or Higher level. IB Art/Design courses help develop students’ aesthetic and creative faculties, offer training in awareness and criticism of art, and enable students to create quality works of art of their own. Students perform both studio and research work; the research component is designed to investigate particular topics or concepts of interest in further detail.

IB Art 2 0.5/sem

IB Information Technology 1 0.5/sem
Information Technology in a Global Society is the study and evaluation of the impact of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the use of digitized information at the local and global levels. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts. Projects and a portfolio, along with successful completion of the International Baccalaureate ITGS exam at the Standard or Higher Level, are required.

IB Information Technology 2 0.5/sem
At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through practical engagement in the art and craft of film. All students are encouraged to develop their creative and critical abilities and to enhance their appreciation and enjoyment of film.

**IB Film 1**

0.5/sem

IB Film 1 is available at Studio 39 only.

**IB Film 2**

0.5/sem

05168/0500

**Honors IB Research**

0.5/sem

IB Advanced Independent Research and Creative Achievement is an Advanced Course for students participating in the International Baccalaureate Diploma Programme, who are committed to completing independent research and creative work. This course will provide opportunities for advanced research and engaging work with Creativity, Action and Service (CAS), both core components of the IB Diploma Programme. Students will conduct independent research at the college level, evaluate sources, and complete a 4000 word independent research paper. Students will also work to support their local and global communities through creative action and collaboration with their IB peers around the world. Students will create a portfolio that demonstrates their achievement of their CAS work. (Honors)

**Prerequisites:** Placement in IB Diploma Programme.

04994/2000

**PVA**

**Performing & Visual Arts**

Annapolis and Broadneck High Schools

The PVA High School Magnet Program is an education choice for arts students who demonstrate artistic ability, interest and potential wishing to continue building their artistic skills and gaining real-world experience in the arts. A comprehensive curriculum designed to engage students in intense arts instruction that emphasizes the creative process through collaborative opportunities is facilitated by highly qualified teachers, professional artists and teaching artists. Students are able to focus their study in one of the Prime Arts Majors: Creative Writing, Dance, Film, Music (guitar, instrumental, piano, or vocal), Technical Production/Arts Management, Theatre, or Visual Arts (2-D studio art, 3-D studio art, digital media). Upon graduation, students will be prepared to pursue a career in an arts field or to continue their artistic studies at an arts school, or conservatory, or four year institution of higher learning. PVA courses are only available to students enrolled in the PVA Magnet Programs.
collaborative exhibition/performance. The capstone must contain work done predominantly during the senior year. The performance/exhibition is selected, designed and constructed by the student in collaboration with other student artists and/or professional artists or art companies. Assessment is based on the development of an artistic process portfolio. Limited to seniors in the PVA Magnet Program only. Students must also register for PVA Senior Capstone Solo. This course is available at Studio 39 only.

P31 | PVA Honors Senior Capstone Solo 1.0/sem
This required course provides the PVA senior with the support to conceive, create and produce an original individual artwork (production, art exhibit, musical or dance performance, recitation, design exhibit, film screening). Students’ work review occurs in the first senior semester, followed by a final review in the last semester prior to the presentation of the senior capstone project, a solo exhibition. It must contain work done predominantly during the senior year. The performance/exhibition is selected, designed and constructed by the student. Assessment is based on the development of an artistic process portfolio. Limited to seniors in the PVA Magnet Program only. Students must also register for PVA Honors Senior Capstone Collaborative. This course is available at Studio 39 only.

P05 | Honors PVA Creative/Dramatic Writing 1 0.5/sem
Students will explore various writing techniques to shape their identity as writers. Using literature as a model, students will write imaginatively while incorporating multiple writing traits to a variety of literary genres (poetry, non-fiction, fiction, and drama). By engaging in personal creativity and opportunities for self-expression, students will learn to provide feedback in a writer’s workshop, publish work in an electronic portfolio and submit to the school literary magazine as well as local, regional, and national literary competitions. Guest authors and poets will be used to enhance the working classroom. This course is available at Annapolis High School only.

01104/0801

P06 | Honors PVA Creative/Dramatic Writing 2 0.5/sem
This course will enable students to continue their development of a personal writing style building upon the principles and experiences of PVA Creative and Dynamic Writing 1. Utilizing a variety of literature models, students will expand their capabilities for imaginative writing and deepen their understanding of successful creative writing traits. Students will explore literary genres in a more in-depth way to develop products, critique peer and professional writing and publish work in external publications. This course is available at Annapolis High School only.

01104/0801

P79 | Honors PVA Creative Writing: Genre Studies 0.5/sem
Genre Studies designed for students in the third year of the PVA Magnet Program on the Creative Writing major. This course provides intensive study of four specific styles of creative writing: short stories and novels, poetry and lyrics, playwriting and screenwriting, and creative non-fiction. In depth analysis of classic and contemporary works from each genre leads to extensive research and development results in the production of original works to be published. Works written in this course will be further developed and produced in the Media Writers Workshop Level 3 course in which students are concurrently enrolled. This course is available only at Annapolis High School.

00000/0801

P10 | Honors PVA Media/Writers Workshop 1 0.5/sem
Students will explore various forms of technology to infuse elements of that technology into original forms of creative and dramatic writing. Since this course is taught simultaneously with Creative Writing & Dramatic Writing 1, the same goals will be reflected while teaching how to create/draw/construct through various applications. This course is available at Annapolis High School only.

01103/0801

P11 | Honors PVA Media/Writers Workshop 2 0.5/sem
Course introduces additional technologies through which professionals participate in creative expression. The emphasis will be placed on the production of a publicly shared finished product. Students will also explore historical works and suggest/plan how technology infusion could enhance them. Since this course is taught simultaneously with Creative Writing/Dramatic Writing 2, the same goals will be reflected while teaching how to create/draw/construct through various technological applications. This course is available at Annapolis High School only.

01103/0801

P12 | Honors PVA Media/Writers Workshop 3 0.5/sem
Students use technology in order to create and publish original pieces using blogs, zines, digital portfolios, and social media sites. During this course, students will further develop, refine, and publish pieces begun in the Genre Studies course in which students are concurrently enrolled. This course is designed for students in the third year of the PVA Magnet Program in the Creative Writing major. This course is available only at Annapolis High School.

01103/0801

P17 | PVA Creative Writing Production & Technology 1 0.5/sem
Students will explore various literary publication techniques to shape their identity as writers. Students will study traditional print-based media outlets as well as social media outlets for publication. They will learn editing, marketing, and networking techniques used in the publishing industry. Social media will be explored in depth with students learning to critique online publishing venues as well as learning how to effectively blog, tweet, and publish in the high-tech, fast-paced, high-stakes global electronic media world. This course is available at Annapolis High School only.

01147/0801

P18 | PVA Creative Writing Production & Technology 2 0.5/sem
Designed to extend the application of the various writing techniques incorporating multiple writing traits related to a variety of literary genres (poetry, non-fiction, fiction, and drama). Students will extend research of literary genres in a more in-depth way to develop products, critique peer and professional writing and publish work in external publications. This course is available at Annapolis High School only.

01147/0801

PV05 | Honors PVA Ballet 1 0.5/sem
The course will familiarize students with the history, vocabulary, concepts and techniques of ballet. Students will learn posture, alignment, barre and centre techniques in increasingly difficult levels of ballet as they progress through the levels of PVA dance. The course involves creative and critical thinking to make effective decisions to achieve technical goals. The classroom atmosphere will be comfortable yet challenging as students refine the craft of ballet technique. This course is available only at Annapolis High School.

05001/0400
This course emphasizes proficiency in high level techniques in modern dance. The advanced level challenges the student with refining complex combinations. This course will focus on original composition in choreography. This course is available only at Annapolis High School.

05001/0400

**PV06 | Honors PVA Ballet 2**

0.5/sem

This course will further develop the PVA Dance Major students’ stamina and physical abilities at an advanced level with challenges of more complex combinations at the barre and in the center. This course is available only at Annapolis High School.

05001/0400

**PV07 | Honors PVA Ballet 3**

0.5/sem

This course will place emphasis on greater technical proficiency. The student will work on fluidity of movement, balance, and combinations with adagio, petit allegro and grand allegro. This course is available only at Annapolis High School.

05001/0400

**PV08 | Honors PVA Ballet 4**

0.5/sem

In this advanced level ballet course students focus on integrating energy and strength to artistic movements. The level of difficulty is increased while students exhibit higher degree of propter line and placement as they move throughout the class. Students take on the role as choreographer creating and producing original compositions. This course is available only at Annapolis High School.

05001/2040

**PV01 | Honors PVA Modern Dance 1**

0.5/sem

This course will provide Performing & Visual Arts Magnet Program Dance Major students, with and without extensive training, the first year of modern dance instruction that is dedicated to a fundamental understanding of anatomically sound placement and movement. This course will establish the habits that will serve students throughout a long career in the field. The contrasting and specific schools of technique, such as Graham, Humphrey-Limon, Horton and Hawkins, simultaneously broaden each student’s level of technique while deepening their connection with the beginnings and style of the art form. This course is available only at Annapolis High School.

05001/0400

**PV02 | Honors PVA Modern Dance 2**

0.5/sem

This course emphasizes choreography and performance based on modern dance forms. Students experience dance as a performing art and as a means of expression and communication. Designed to teach intermediate dancers the style and technique based on the principles of Cunningham, Nikolais, Humphrey-Weidman and other pioneers of American modern and post-modern dance. This course is available only at Annapolis High School.

05001/0400

**PV03 | Honors PVA Modern Dance 3**

0.5/sem

In this course increased emphasis is placed on greater technical proficiency in modern dance. The advanced level challenges the student with more complex combinations. This course will explore the principles of “fall and recovery,” symmetry/asymmetry, stage space, and ensemble work. This course is available only at Annapolis High School.

05001/0400

**PV04 | Honors PVA Modern Dance 4**

0.5/sem

This course emphasizes proficiency in high level techniques in modern dance. The advanced level challenges the student with refining complex combinations. This course will focus on original composition in choreography. This course is available only at Annapolis High School.

05001/2040

**PV33 | Honors PVA Dance Composition/Repertory**

0.5/sem

Dance students of the Performing and Visual Arts high school magnet program extend their knowledge of the art form by participating in improvisational dance. The dance students will formulate and use multiple sets of criteria to critique personal performances, improvised and choreographed, and the performances of others composing and choreographing dance pieces. This course is available at Annapolis High School.

05001/0400

**PV15 | Honors PVA Dance Production & Technology 1**

1.0/sem

Students will participate in the non-performing aspects of dance through the creation, design and production of detailed elements (sets, costumes, properties, lighting, sound, marketing, publicity) based upon identified concert works, of quarterly in-class and informal performances to be produced in public venues. Technological literacy is paramount as design work is created, transferred and shared through various electronic media and applicable software. Students work collaboratively and communicate effectively through ongoing, internal production meetings and external marketing of the creative work. This course is available at Annapolis High School only.

05001/0400

**PV16 | Honors PVA Dance Production & Technology 2**

1.0/sem

Through applied education, students will partner to plan dance productions by preparing for a formal concert (lighting, flooring, front-of-house, marketing, etc.) The dance majors will further develop their technological skills to edit and annotate videos for the portfolio to document their work. This course is available at Annapolis High School only.

05001/0400

**PV37 | Honors PVA Dance Explorations**

0.5/sem

Designed for all dance majors, this course extends their knowledge of the art form as they explore a range of other movement vocabularies including Tap, Jazz, African, and Musical Theatre. Through applied learning, dance students understand the origins of a specific dance style, its codification and how clear artistic standards act to uniquely define each style. This course is available only at Annapolis High School in the extended day program.

05004/0400

**P37 | Honors PVA Film Elements 1**

0.5/sem

Students will explore film making. Through the study and production of the filmmaking process, students will enhance their own filmmaking skills and develop their personal voice. Throughout the course students will further their understanding and articulation of the concepts, vocabulary, and techniques of filmmaking by watching films of various genres and various eras. Students will use state of the art computer-based technologies and equipment to learn and practice film-making techniques. This course is available at Annapolis High School only.

05054/0500

**P38 | Honors PVA Film Elements 2**

0.5/sem

This course enhances students’ understanding of both the conceptual and production aspects of Film, Video, and New Media, while expanding what the medium can be. Through the analysis of master works and application through technical based instruction, students learn about artistic endeavors in film, video, installations, performance, social media, and programming. A definitive focus on technical abilities.
including, cinematography, acting, writing, editing, special effects, installation, experimental processes are included within the expansion of the content. This course is available only at Annapolis High School.

**PV80 | Honors PVA Film: Genre Studies 0.5/sem**

This course includes intensive study of the specific genres within the two main types of filmmaking: Narrative Archetype and Documentary Archetype. Examples within the Narrative Archetype are Hong Kong Cinema, Horror, Film Noir, Science-Fiction, Experimental Narrative, and Comedy. Examples within Documentary Archetype are Video Blogging, YouTube Channels, Experimental, Documentary, and Socio-Political Analysis will be explored and analyzed. This course is available only at Annapolis High School.

**PV24 | PVA Film Production & Technology 2 0.5/sem**

Students will strengthen and refine their abilities in the completion of the film process by focusing on the necessary components of final editing, screening, and producing exhibitions of their artwork(s). The film majors will further develop their presentation and technological skills in order to create a portfolio to document their work. This course is available only at Annapolis High School.

**P90 | Honors PVA Music Technology 0.25/sem**

Students will become familiar with the concepts, processes, materials and tools associated with music technology. Students will develop skills with sequencing, recording, and notation utilizing a variety of music software applications and programs, high-tech software, electronic instruments, and computer-based technologies. This course is available at Broadneck High School only.

**P29 | Honors PVA Music Theory/Composition 0.25/sem**

Students will develop music composition skills and will craft the students’ creative processes. Compositional techniques and comprehensive musical literacy will be developed through robust and diverse repertoire. Students will use state of the art computer-based technology to design and arrange musical compositions. They will compose and share their compositions with their peers, school and community. This course is available at Broadneck High School only.

**P49 | Honors PVA Music History Styles & Composition 0.25/sem**

PVA Honors Music Historical Styles & Composition is a course designed to introduce the student to selected masterpieces of Western music throughout major style periods, Medieval through 21st Century, and to lead the student to an understanding of the relationship of music to general culture and human development. The course will provide students with visual and aural identification of stylistic elements in various musical works, and the placement of those works in cultural and historical context. This course is available at Broadneck High School only.

**PV25 | Honors PVA Drum Lab 0.25/sem**

PVA Honors Drum Lab is a course designed to introduce the techniques and concepts of hand drumming and percussion. In this hands-on course students will learn hand-drumming basics: proper body and hand positioning, correct drumming technique, how breath, relax, and embrace rhythms. Students will learn the basic rhythmic foundation of the world’s most popular rhythms: reggae, samba, hip hop, funk, salsa, bellydance, rock n roll, African 6/8 and more. The course will incorporate ENSEMBLE playing: layering multiple interlocking rhythms in traditional and contemporary arrangements (Afro-Cuban Rumba, Bembe & Iyesa, Brazilian Samba & Afoxe, West African Kuku, American Funk and more). This course is available at Broadneck High School only.

**PV35 | Honors PVA Applied Musicianship 1 0.5/sem**

Students will strengthen and refine their artistic abilities through opportunities including master classes with professional musicians, private lessons, chamber groups and traditional and non-traditional ensembles. Students will be challenged to work independently and in teams to perform at a professional level. This course is available at Broadneck High School only.
PV36 | Honors PVA Applied Musicianship 2 0.5/sem
Designed to expand and reinforce student's individual musical artistic abilities. Expansion of master classes with professional musicians, private lessons, chamber groups and mixed instrumentation ensembles. This course is available at Broadneck High School only.
05109/1300

P64 | Honors PVA Ensemble Band 1 0.5/sem
This course is designed to strengthen and refine the band student’s musical technique. Wind and percussion students will be immersed in a variety of intensive performing, listening, creating, and evaluating experiences. Emphasis will be placed on a rigorous development of skills, particularly the ability to perform in an ensemble and as a soloist. Students will also engage in transcribing and arranging music. Development of comprehensive literacy will be emphasized through a repertoire that is robust, varied, and representative of diverse genres and cultures. This course is available at Broadneck High School only.
05102/1300

P65 | Honors PVA Ensemble Band 2 0.5/sem
This course is designed to build on the earlier year of study to further strengthen and refine the band student’s musical technique and expand their experiences in listening, creating, performing and evaluating a comprehensive repertoire of music. This course provides wind, percussion and brass students with more advanced instruction in the development of individual musical skills with emphasis on ability to perform in eclectic mixed ensemble and as a soloist in a variety of public venues. This course is available at Broadneck High School only.
05102/1300

P66 | Honors PVA Ensemble Band 3 0.5/sem
This course is designed to provide wind and percussion students the advanced concepts to enhance student’s musical techniques and refine their skills of interpretation, expression and musicality. This course continues to prepare students and provide opportunities for performance in eclectic mixed ensemble and as a soloist in a variety of public venues while expanding the student’s repertoire of various genres and cultures. This course is available at Broadneck High School only.
05102/1300

P67 | Honors PVA Ensemble Band 4 0.5/sem
This course is designed to refine students’ musicianship building on the band instrument skills and techniques developed in previous levels. The focus is on original composition, preparing students for solo performance and audition for college and career choices. This course is available only at Broadneck High School.
05102/1300

P60 | Honors PVA Guitar 1 0.5/sem
Students will strengthen and refine their guitar technique, with an emphasis on acoustic guitar. Development of comprehensive musicianship will be emphasized through a wide repertoire of original guitar literature, transcriptions, and arrangements. A variety of guitar techniques will be explored through diverse musical genres and styles. This course is available at Broadneck High School only.
05108/1300

P61 | Honors PVA Guitar 2 0.5/sem
Designed to build upon the earlier year of study providing the guitar major with more advanced instruction in all styles of guitar performance increase the robust and extensive performance skills and opportunities for the guitar major with acoustic guitar as the primary medium. Development of advanced musicianship skills will be emphasized through a wide repertoire of original guitar literature, transcriptions, and arrangements. This course is available at Broadneck High School only.
05108/1300

P62 | Honors PVA Guitar 3 0.5/sem
This course is designed to expand upon the skills and techniques developed in levels 1 and 2. The student will master the essential techniques for guitar performance in a variety of musical styles. The student will perform as a soloist, collaboratively with other guitarists and as a collaborative member of mixed vocal and instrumental ensembles. This course is available at Broadneck High School only.
05108/1300

P63 | Honors PVA Guitar 4 0.5/sem
This course is designed to refine students’ musicianship building on the guitar skills and techniques developed in previous levels. The focus is on original composition, preparing students for solo performance and audition for college and career choices. This course is available only at Broadneck High School.
05108/1300

PV42 | Honors PVA Piano 1 0.5/sem
This course is designed to strengthen and refine the PVA piano students’ keyboard/piano skills through performance based instruction that includes comprehensive experiences in reading, creating, and listening to music as well as refining their understanding of history, terms, structure and symbols. Students explore classical piano technique, style, interpretation, memorization, and performance practice in a master-class setting while playing a wide repertoire of keyboard and piano music literature as solo artist and in ensembles. Available at Broadneck High School only.
Prerequisite: Students must have prior piano/keyboard performance experience/skills and have been accepted to the PVA instrumental music piano program. Students are concurrently enrolled in PVA Honors Music Theory.
05139/1300

PV43 | Honors PVA Piano 2 0.5/sem
Building on skills and concepts in Piano 1 students’ keyboard/piano skills through performance based instruction that includes comprehensive experiences in reading, creating, and listening to music as well as refining their understanding of history, terms, structure and symbols. Students explore classical piano technique, style, interpretation, memorization, and performance practice in a master-class setting while playing a wide repertoire of keyboard and piano music literature as solo artist and in ensembles. This course is available only at Broadneck High School.
05139/1300

PV44 | Honors PVA Piano 3 0.5/sem
This course emphasizes advanced performance technique, music analysis and advanced musicianship skills. It is designed to hone students’ piano skills while expanding their repertoire and ability to communicate to the audience. This course is available only at Broadneck High School.
05139/1300
This course is designed to refine students' musicianship building on the piano skills and techniques developed in previous levels. The focus is on original composition, preparing students for solo performance and audition for college and career choices. This course is available only at Broadneck High School.

05139/1300

P68 | Honors PVA Ensemble Strings 1 0.5/sem
Students will strengthen and refine their musical technique by immersing themselves in a variety of intensive performing, listening, creating, and evaluating experiences. Emphasis will be placed on a rigorous development of skills, particularly the ability to perform in an ensemble and as a soloist. Students will also engage in transcribing and arranging music. Development of comprehensive literacy will be emphasized through a repertoire that is robust, varied and representative of diverse genres and cultures. This course is available at Broadneck High School only.

05104/1300

P69 | Honors PVA Ensemble Strings 2 0.5/sem
Designed to build on the earlier year of study to further strengthen and refine the string students' musical technique and expand their experiences in listening, creating, performing and evaluating a comprehensive repertoire of music. This course provides violin, viola, bass and cello students with more advanced instruction in the development of individual musical skills with emphasis on ability to perform in eclectic mixed ensemble and as a soloist in a variety of public venues. This course is available at Broadneck High School only.

05104/1300

P70 | Honors PVA Ensemble Strings 3 0.5/sem
This course is designed to expand a student's musical technique and diversify their repertoire. An emphasis is on portfolio development and audition preparation for conservatory and/or higher education opportunities. This course provides violin, viola, bass and cello students more advanced instruction in the development of individual musical skills with emphasis on ability to analyze cross cultural musical style influences, such as jazz, rap and hip-hop, on twenty-first century cinematic scores. This course is available at Broadneck High School only.

05104/1300

P71 | Honors PVA Ensemble Strings 4 0.5/sem
This course is designed to refine students' musicianship building on the string instrument skills and techniques developed in previous levels. The focus is on original composition, preparing students for solo performance and audition for college and career choices. This course is available only at Broadneck High School.

05104/1300

P76 | Honors PVA Vocal Music Performance 1 0.5/sem
Students will strengthen and refine their musical technique by immersing themselves in a variety of intensive performing, listening, creating, and evaluating experiences. Emphasis will be placed on a rigorous development of skills, particularly the ability to perform in an ensemble and as a soloist. Students will also engage in transcribing and arranging music. Correct vocal production, diction, sight singing, and comprehensive musicianship will be emphasized through representative vocal repertoire from historical periods, musical styles and genres. This course is available at Broadneck High School only.

05112/1300

P77 | Honors PVA Vocal Music Performance 2 0.5/sem
Designed to continue to improve upon the students' vocal music technique. Building upon fundamentals learned in PVA Vocal Music Performance 1, vocal students will continue to evaluate, create, listen to and perform musical selections. Diverse musical styles and genres as well as historical periods will continue to be presented to expand the vocal students' repertoire. This course is available at Broadneck High School only.

05112/1300

P78 | Honors PVA Vocal Music Performance 3 0.5/sem
This course is designed to promote a student's individual vocal performance skills and techniques while increasing their ability to memorize repertoire from a variety of diverse music genres. Building upon fundamentals learned in PVA Vocal Music Performance 2, vocal students will continue to evaluate, create, listen to and perform musical selections. This course is available at Broadneck High School only.

05112/1300

P79 | Honors PVA Vocal Music Performance 4 0.5/sem
This course is designed to refine students' musicianship building on the string instrument skills and techniques developed in previous levels. The focus is on original composition, preparing students for solo performance and audition for college and career choices. This course is available only at Broadneck High School.

05112/1300

P80 | Honors PVA Theatre History/Stagecraft 1 0.5/sem
Students will deepen their knowledge of the history of theatre and stagecraft throughout time. Students will study the origins and development of theatre from ancient civilizations through the Renaissance to Modern Theatre. Emphasis is placed on the development of dramatic forms through the reading of plays, the evolution of theatre architecture, and production in the western theatre. This course is available at Annapolis High School only.

05056/1300

P81 | Honors PVA Theatre History/Stagecraft 2 0.5/sem

05056/1300

P84 | Honors PVA Acting/Theatre Performance 0.5/sem
Students will improve their knowledge of historical themes through the study of various aspects of acting performance while honing their craft by layering principles of specific acting techniques which emphasize creativity, communication and collaboration. Instruction includes rigorous exercises that develop and strengthen the movement abilities, vocal agility and imagination of each student through creative problem-solving activities that require self-assessment and critical thinking. This course is available at Annapolis High School only.

05055/1300

P88 | Honors PVA Technical Design/Arts Management 1 0.5/sem
Students will create, design and produce detailed elements (sets, costumes, properties, lighting, sound, marketing, and publicity) based upon researched themes that enable quarterly in-class and informal, and quarterly performances to be presented in public venues. Technological literacy is paramount as design work is created, transferred and shared through various electronic media and applicable software. In this course, students work collaboratively and communicate effectively through ongoing, internal production meetings and external marketing of the creative work. This course is available at Annapolis High School only.

05057/1300
In this course technological literacy is paramount as design work is created, transferred and shared through various electronic media and applicable software. Technical Design and Arts Management students work collaboratively and communicate effectively through ongoing, internal production meetings and external marketing of the creative work. This course is available only at Annapolis High School.

In this course students will select specific disciplines within the Theatrical Design, Production and Management areas for intensive study. This will include subjects such as Scenic Design and Set Construction, Costume Design, Wardrobe Management and Costume Construction, Lighting Design and Electrics, Sound Design and Sound Engineering, Properties Design and Properties Construction, Stage Management, Event Management, and Audience Attire. Students will focus on the specifics skills, techniques, and best practices within the subject of their choosing. In addition, third year design students will train toward becoming "Lead Designers" for their area of specialization. This course is available only at Annapolis High School.

Students in the Technical Design and Arts Management magnet program concentrated study will explore the various areas of design: Costume, Scenic, Lighting, Sound, Craft and Construction. Application of design concepts are realized as students design, revise, and create costumes, construct sets, project lighting and run sound for performances and theatrical productions throughout each semester. Attendances at professional productions (with assigned written analyses) are additional requirements of the course. This course is available only at Annapolis High School.

Students will strengthen and refine their theatrical abilities. In this extended day course students refine their craft as they create, design and produce both informal in-class performances and trimester performances to be presented in public venues. Students work collaboratively and communicate effectively through ongoing, internal production meetings and external marketing of the creative work.

Theatre Production and Performance is a course designed to strengthen and refine the student’s artistic theatrical abilities. In this extended day course, students refine their craft as they create, design, and produce both informal and trimester performances to be presented in public venues. Students work collaboratively and communicate effectively through ongoing, internal production meetings and external marketing of the creative work.

Theatre students of the Performing and Visual Arts magnet school deepen their knowledge of theatrical studies throughout the school year as they alternate units of study between movement and voice work. The movement units allow students to become aware of their bodies as instruments of communication. Students explore basic loco motor and stationary movement patterns through yoga and jazz dance, as well as historical musical theatre dance styles (i.e.—Charleston, Swing, Polka, Waltz and Tango) and stage combat. During classes focused on voice students begin to use different aspects of vocal communication. Issues are addressed such as correct vocal placement, diction, articulation, regional speech habits and pitch. Students apply their vocal knowledge to both spoken and sung repertoire.

Utilizing the acting fundamentals put into place by the previous years of study, students will continue honing their craft by layering principles of specific acting techniques. Instruction focuses on specific acting techniques and their application to theatrical literature of 20th Century America. Instruction includes rigorous exercises that engage students in play exploration through reading, analysis, monologue and scene work. In the second semester, students are guided in directing projects that will result in an evening of one-acts. Several performances throughout each semester, as well as attendance at several student and professional productions (with assigned written analyses) are additional requirements of the course. This course is available only at Annapolis High School.

Students will strengthen and refine their artistic abilities and observational capabilities. Students will be provided opportunities to experiment in a variety of media such as drawing, painting, sculpture, photography and digital imaging. Emphasis will be placed on rigorous development of skills, especially design and composition concepts. Included will be experiences in working with artists in residence and museum resources. Sketchbooks and Visual Journals will be required to record ideas, research, and to document their step by step discovery process.

Students will consider their role as visual communicators with consideration of audience, artistic attitude and personal mission as they develop studio work. They will be guided through the assembly of a portfolio to value their work and examine artistic relationships based on personal criteria. Through critiques, students will articulate the aesthetic characteristics and meaning of personal, peer, and master artworks.

Through examination of a body of work created through creative problem solving that involves personal aesthetic choices and variety of media. Through the assembly of a portfolio, students will learn to value their work and examine artistic relationships based on personal criteria contemporary practices.
Through oral and written critiques, students will articulate the aesthetic characteristics and meaning of personal, peer, and master artworks. Students will be able to determine what they are trying to get from a work of art and express their analysis in artist's statements and peer critiques.

**P25 | Honors PVA Digital Media 1**

0.5sem

PVA Digital Media 1 will provide experimentation with design theory and interpretation of themes into works of art in digital media. The student will study photography and digital design processes and then apply them to a variety of exciting and creative computer generated design projects. Students will work with state of the art software such as Adobe Creative Suite Master Collection, in order to develop professional digital skills.

**P26 | Honors PVA Digital Media 2**

0.5sem

Designed to expand and improve upon design theory and interpretation of themes into works of art in digital media. The student explore traditional and digital photography as well as research and analyze emerging new digital design processes and then apply them to a variety of exciting and creative computer generated design projects. Students will continue the mastery of state of the art software such as the Adobe Creative Suite Master Collection, in order to will develop professional digital skills.

**P92 | Honors PVA 2-D Design 1**

0.5sem

PVA 2-D Design 1 is designed to improve student's observational skills and bolster their confidence in visual expression through a sequence of studio assignments. Students will create artworks with traditional or non-traditional media exploring themes and styles through observational and imaginative portraits, figure drawing, abstract works, landscapes, and more. Students will conduct research and do a presentation form selection from a variety of production media on a given theme.

**P93 | Honors PVA 2-D Design 2**

0.5sem

Designed to expand and improve upon observational and artistic skills learned in the PVA Two-Dimensional Design 1. Students will produce art pieces exploring the themes and styles of observational and imaginative portraits, figure drawing, abstract works, landscapes and more. Students will have a variety of studio experiences, conduct research and develop sketches or studies resulting in a presentation as well as production of art pieces. Additional themes beyond those in Two-Dimensional Design 1 will be explored.

**P96 | Honors PVA 3-D Design 1**

0.5sem

PVA 3-D Design 1 is designed to introduce and familiarize the student with concepts, processes, materials, and tools associated with the three-dimensional creation and development of a sculptural form. This course will enable students to begin to develop a personal style while cultivating their creativity.

**P97 | Honors PVA 3-D Design 2**

0.5sem

Designed to deepen understanding and creatively engage the student in a three-dimensional space and medium. This course will enable students to continue their development of a personal artistic style while cultivating their creativity. Students will utilize the three-dimensional creation process to create a variety of works based on the study of a variety of master and contemporary sculptures.

**PV31 | PVA Visual Arts Production & Technology 1**

1.0/sem

Students will begin to assess a body of work through creative problem solving that involves personal aesthetic choices and variety of media. Students will organize series or selections of their work and/or the works of other students based on personal criteria. Students will complete the process of creation; selection of theme and venue; framing, hanging, installation, and digitally recording artworks in order to produce electronic and/or authentic exhibitions of their artwork(s).

**PV32 | PVA Visual Arts Production & Technology 2**

1.0/sem

Designed to extend the students creation of body of artworks related to a variety of production media and concepts around particular contemporary themes. By engaging creative opportunities for self-expression, work will be published in an electronic portfolio and displayed in school and submitted to community and regional exhibitions. Expanded emphasis will be given to the connection between art production and technology.

**PV63 | Honors PVA Printmaking**

0.5/sem

PVA Printmaking is an honors course designed to introduce the techniques and concepts of traditional printmaking processes, including intaglio, relief, and monotype. Students will experiment with the tools, methods and materials for making printed artworks with particular focus on how manual printing and traditional techniques relate to contemporary concepts and individual art practice. This study includes the creation and utilization of various printmaking procedures and how to work in a professional print shop environment.

**P58 | Honors PVA Color Theory**

0.5/sem

This course presents students with an in-depth exploration of color theory, including additive and subtractive color and its implications for the artist and designer. Color and its relationship to composition will be investigated through: interaction of color harmony and contrast; application to solve spatial problems; and thinking and information of color design for a variety of visual effects. With historical meanings as the frame, students will embrace the ever changing and ephemeral nature of color perception in contemporary design. This course is available only at Annapolis High School.

**PV73 | PVA Anatomy and Figure Drawing**

0.5/sem

PVA Anatomy and Figure Drawing is a course designed to develop skills in observation and drawing from life, a special emphasis will be placed on the understanding and application of structure, anatomy and the expressive human form. This course will offer an in depth study of the figure and the surface anatomy exploring a wide variety of media and techniques. This course is available only at Annapolis High School.

**PS7 | Honors PVA Art: Space & Time**

0.5/sem

This course is designed to incorporate a variety of media including photography, drawing, painting, video, sound and sculptural materials in works that expand physical boundaries beyond the art object. Experimentation with different processes and media drive the student
in considering sites for the installation of art pieces. Students verbally, visually and in written form document the process, development of ideas as they complete artist statements, critiques and presentations of their works. This course is available only at Annapolis High School.

05154/0100

PV52 | PVA Acting for the Artist 0.5sem

This acting course for non-acting students expands the PVA students’ understanding of “performance” in a collaborative atmosphere. While significant memorization will be required, students will be required to prepare simple assignments outside of class. Students will be expected to actively participate in exercises. Particular emphasis will be given to expanding the imagination, supporting classmates’ growth, collaborating effectively, and building self-confidence. Course instruction makes vocalists and dancers more comfortable with acting as part of their vocal/dance work. (For PVA students interested in musical theatre. Not for PVA acting students.)

00000/0500

PV53 | PVA Voice for the Artist 0.5sem

In this course students will discover their best singing voice and more experienced singers will gain an opportunity to exercise their vocal muscles through group work. The course focuses on proper techniques for breathing, projection, voice placement, and articulation taught through singing. Instruction emphasizes text interpretation and characterization in song. This course teaches singing technique to broaden the actor’s and/or dancers’ spoken vocal range. Course instruction makes actors and dancers more comfortable with singing as part of their acting/dance work. Students will also learn techniques to help protect their voices when they sing. (For PVA students interested in musical theatre. Not for PVA vocal students.)

05111/1300

PV54 | PVA Movement for the Artist 0.5sem

This dance course is suitable for ambitious students who have minimal or no prior dance training, but who would like to learn the fundamentals of dance and movement for theatre. This course is designed support actors and singers to connect fully to their bodies in movement. Through group exercises and devised assignments, students will become more adept at playing in the environment of a scene, creating fully realized characters, and will develop their vocabulary in the language of the body. (For PVA students interested in musical theatre. Not for PVA dance students.)

00000/0400

PV56 | PVA Broadcasting & Recording 0.5sem

In this course students will learn to understand and manage complex sound systems, including recording studios and live sound reinforcement installations. Through practical application students will gain the ability to properly set up, operate, and manage sound systems effectively utilizing their understanding of both sound and electrical or audio signals. This course provides students an introductory look at sound systems, both analog and digital, from initial acoustic inception, to power and acoustic reproduction. Available at Annapolis High School only.

00000/2000

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**STEM**

**Science Technology Engineering & Math**

North County and South River High Schools

The STEM Magnet Program offers five pathways that students may pursue: Earth & Space Systems, Green Technologies, Nanotechnology and Materials Science, Computer Science and Theoretical Applied Mathematics, and Engineering. Upon graduation, students will be ready to enter the STEM workforce directly or to continue their education along their chosen STEM pathway at a four-year college or university. STEM courses are only available to students enrolled in the STEM Magnet Program.

B83 | Honors STEM Policy 0.5sem

Students will work collaboratively to analyze current national and international STEM-related policies, study the role professional STEMists have in making these policies, review different perspectives on STEM-related public issues, and discuss the policy development process—including the role of the individual citizen—at the local, state, and federal levels. In this course students will create timelines, analyze reports and budgets, and interview stakeholders to research a contemporary local issue from a STEM perspective. Students will use their findings to collaboratively write an annotated executive STEM policy brief to be presented to a panel of experts.

NCAA 04199/1706

B84 | Honors STEM Policy 0.25/qtr

Students will work collaboratively to analyze current national and international STEM-related policies, study the role professional STEMists have in making these policies, review different perspectives on STEM-related public issues, and discuss the policy development process—including the role of the individual citizen—at the local, state, and federal levels. In this course students will create timelines, analyze reports and budgets, and interview stakeholders to research a contemporary local issue from a STEM perspective. Students will use their findings to collaboratively write an annotated executive STEM policy brief to be presented to a panel of experts.

NCAA 04199/1706

C03 | Honors System Science A Biology (STEM) 0.25/sem

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research,
and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03201/1604

**C04 | Honors System Science A Chemistry (STEM) | 0.25/sem**

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research, and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03201/1604

**C05 | Honors System Science A Physics (STEM) | 0.25/sem**

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research, and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03201/1604

**C06 | Honors System Science B Biology (STEM) | 0.25/sem**

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research, and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03201/1604

**C07 | Honors System Science B Chemistry (STEM) | 0.25/sem**

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research, and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03201/1604

**C08 | Honors System Science B Physics (STEM) | 0.25/sem**

This course is a two year program in which the Core Learning Goals of Honors Biology, Honors Chemistry and Honors Physics are integrated based on topic and common assessment limits. The course is implemented using the Problem-Project Based format based on the Buck Institute Model. In depth inquiry, student-driven research, and communication of results are interwoven into each module as appropriate. Nearly 40% of class time is spent in lab-based experiences. By immersing our students in this rigorous program based on relevant challenges, laboratory experience and projects, we are fostering students who are engaging in critical thinking, problem-solving, and collaboration. Each module affords itself to Differentiated Learning and Thinking Map implementation. The course is a pipeline at the end of the two years into AP Science programs. It is intended for advanced learners in the STEM Magnet Program.

03161/1604

**C10 | Research/Data Analysis (STEM) | 0.5/sem**

This is a STEM Capstone course for seniors and is designed to support student exploration and research in an area of the student’s choosing. This may be a continuation of, extension of, and/or inspired by problems and/or projects explored via Problem Based Learning 3: Community Challenge and/or Internship experience. Students will be expected to write and submit a professional paper (White Paper), create and present a Scientific Poster, and formally present formally their experience and/or findings. Students will develop project management skills as they apply to their year-long endeavor, with daily updates and modifications to their plan. This STEM Capstone course is for advanced learners in the STEM Magnet programs at both North County and South River High Schools. In this interdisciplinary course, students will have the opportunity to receive mentoring from professional STEM-ists, support from a STEM teacher, and time to carry out an experimental research project in a supportive setting.

**Prerequisites:** Successful completion of AP Environmental or AP Computer Science or AP Statistics, in addition to one STEM Pathway 2 course with advanced weighting.

**NCAA:** 03212/2000

**C22 | Environmental Media (STEM) | 0.5/sem**

This STEM Capstone course is for advanced learners in the STEM Magnet programs at both North County and South River High Schools. In this interdisciplinary course, students will have the opportunity to receive mentoring from professional STEM-ists, support from a STEM teacher, and time to carry out an experimental research project in a supportive setting.

**Prerequisites:** Successful completion of AP Environmental or AP Computer Science or AP Statistics, in addition to one STEM Pathway 2 course with advanced weighting.

03212/1608
This course is designed to introduce the students to the individual as a vector of change in today’s society. They can continue their work to a deeper level of inquiry and implementation from the middle school level course or can take it for the first time if they did not have that opportunity in middle school. Through self exploration of local social issues, the student will formulate a strategy for promoting, changing, and engaging the public in an issue that needs attention. Students will be supported and encouraged to move from ideas to action within the semester timeframe. Available at Glen Burnie, North County, and South River only.

Prerequisites: Honors Biology and either Honors/AP US Government or Honors/AP US History

00000/1706

This course is a Pathway 2 course, part of the STEM Earth and Space Systems Pathway, designed as a collection of 4-6 weeklong missions. Students will assume the roles of NASA Mission Scientists within teams as they work together to explore problem-based learning environments in a hybrid earth and space science learning environment. Earth mission modules include a focus on earthquakes, volcanoes, plate tectonics, weather, climate, and climate predictions. Space mission modules include topics such as rocky planets, gas giants, extra-solar planetary systems, the Milky Way, galaxies in the universe, and the Big Bang theory. In this course, students will attend weekly mission briefings, work online alongside scientists, and collect and analyze recent NASA data from the stream of current explorations. NASA technology support tools allow students to collect and analyze data, and present their findings using authentic methods of practicing scientists. This course is intended for advanced learners in the STEM Magnet Program.

Prerequisites: AP Computer Science or AP Statistics and STEM Environment & Society

C37 | Earth/Space Missions  
0.5/sem

This course builds upon skills and techniques developed in Photography and Digital Processes 1. Students will be challenged to create original, expressive works of art based on a variety of photographers, digital artists and photo/digital styles and techniques. A process portfolio and sketchbooks/journal will reflect personal aesthetic choices and design solutions in the development of a body of work.

05162/0100

Environmental Science, Space Science, Oceanography, etc). The proposal must be accepted by appropriate school-based and STEM/BMAH-Office-based personnel.

G33 | Honors Photo/Digital 2 (STEM)  
0.5sem

This course is a one semester Pathway 2 course in the STEM Nanotechnology and Materials Science Pathway. This course engages students in the exploration of the impact of size on chemical and physical characteristics with an emphasis on depth of learning, cross-cutting STEM concepts, relevance to real world applications, and the hands-on practice of science and engineering through inquiry and design. As students explore the nano world, they gain an enduring understanding of the applicability of Nanotechnology to all areas of science and how this relative young science is changing the way we view and interact with computing, environmental issues, materials design, engineering and medicine. This advanced course is paired with STEM Materials Science offered in the opposite semester.

03212/1604

C60 | Materials Science (STEM)  
0.5sem

Prerequisites: AP Computer Science or AP Statistics [NCHS only] and either Honors/AP US Government or Honors/AP US History

C61 | Nanotech Exploration (STEM)  
0.5sem

Advanced Independent Research — Math  
0.5/sem

This pathway is intended for advanced learners in the STEM Magnet Program. The proposal must be accepted by appropriate school-based and STEM/BMAH-Office-based personnel.

Prerequisites: AP Environmental Science or Aeronautics 1 & 2 (SRHS only) or AP Computer Science or AP Statistics (NCHS only) 03210/1608

C77 | Honors Social Innovation & Change (STEM)  
0.5sem

D99 | Advanced Independent Research — Math  
0.5/sem

Students will submit a proposal in an area of research and/or product development related to Applied and/or Theoretical Mathematics with the goal of creating a product or project that is eligible for a patent or publication, could be presented at a national conference, and/or suitable for entrance in a national or international competition. Students will be paired with a mentoring STEM professional. At the end of the course, students will formally present their research to their mentor, STEM faculty, students, and community stakeholders.

03047/1603

Advanced Independent Research — Science  
0.5/sem

This course is a Pathway 2 course in the STEM Earth & Space Systems Pathway. This course (SRHS only), year one of Pilot’s License Training Ground School, is designed to prepare students for the Federal Aviation Administration ground school exam. Through the use of flight simulator, text book assignments, and rich activities, students will gain the knowledge towards becoming a private pilot. There will be an opportunity to meet with guest speakers, including local flight school instructors. By involving aspects of science, technology, engineering, and mathematics, stu-
This is a one semester Pathway 2 course in the STEM Computer Science and Theoretical Applied Mathematics. This course provides an interactive environment for the study real world of problems through mathematical and scientific modeling. A model is a simple construct which unveils or describes important properties of a more complex system that a learner may want to understand more fully. Students learn about the nature and structure of scientific models, limitations of models, model strengths and weaknesses. Numerous technological modeling tools will be used to explore and study complex problems and challenges within an inquiry-based classroom setting. This course is paired with STEM Parallel Computing to round out the Pathway 2 experience and is intended for the Advanced Learner in the STEM Magnet Program.

Prerequisites: AP Computer Science

This course is one yearlong exploration of the field of Unmanned Aerial Systems. Students will be exposed to this exciting STEM career field that is poised to create more than 70,000 new American jobs in the first three years following the integration of unmanned aircraft systems (UAS) into U.S. national airspace system (NAS). Integration is scheduled to take place in 2015. Beyond the first three years, the study projects that more than 100,000 new jobs will be created by 2025. In this course students will build, program and operate an UAS, Unmanned Aerial System. Starting with the basics of what is a UAS and how they work and the tasks they can complete. Emphasis on systems components — parts, Theory of Control Loop automation, FC Software, Communications technologies, Ground Station Mission planning, Flight (Stabilize/Acero, Auto) and First Person View will be taught through presentations, demonstrations, laboratory work (build an ArduCopter UAS), flight training (simulator and actual) challenges, and a final flight mission challenge.

This course studies computer language (Java) and programming practices and procedures. Topics to be covered will include fundamentals of the Java programming language, input and output, flow of control features, data structures and searching and sorting algorithms through the lens of STEM. This course is offered in a hybrid model.

This course is a one semester Pathway 2 course in the STEM Computer Science and Theoretical Applied Mathematics. This course will prepare students for increasingly popular large-scale computing that takes place in the real world, such as search engines, social networking sites, and scientific computational needs. Parallel computing has historically played a key role in addressing the performance demands of high-end engineering and scientific applications. It has now moved to center stage in light of current hardware trends and device power efficiency limits. All computer systems --- embedded, game consoles, laptop, desktop, high-end supercomputers, and large-scale data center clusters --- are being built using chips with an increasing number of processor cores, with little or no increase in clock speed per core. Unlike previous generations of hardware evolution, this shift will impact all segments of the IT industry and all areas of Computer Science. This course introduces students to the foundations of parallel computing and provide application project experience in collaboration with government and industry partners. This advanced course is paired with STEM Mathematical and Scientific Modeling to round out the Pathway 2 experience.

This course is an introduction to unmanned aerial systems for STEM High School students. Drones are becoming the next big thing in aviation and there is a lack of technically skilled individuals needed to maintain and develop the field for the future. By involving aspects of science, technology, engineering, and mathematics; students will experience an inter-curricular method of teaching and learning which creates a deep relevancy to material learned in the classroom. Available at South River only.

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Students will experience an inter-curricular method of teaching and learning which creates a deep relevancy to material learned in the classroom. Students completing this course, in addition to taking the FAA exam, are eligible to continue to study at a local pilot training school to earn their pilot’s license. It is intended for the advanced learner in the STEM Magnet Program. NOTE: Students must enroll in both semesters in the same academic year.

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Prerequisites: AP Computer Science
This course will continue to expose students to the main philosophical pillars of the STEM program: Problem/Project based learning, Socratic Dialogue, and collaborative teamwork.

03999/2000

Students will work with STEM business and higher-education partners on three, six, or nine week problem/project-based modules focused on a current STEM topic or project that is relevant in today's workplace. This course will continue to expose students to the main philosophical pillars of the STEM program: Problem/Project based learning, Socratic Dialogue, and collaborative teamwork.

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03999/2000

This is an 11th grade STEM course for the Advanced Learning in the STEM Magnet program and is modeled after the Honors Challenge at the University of California at Davis. Students are grouped and paired with a mentor who brings the students an authentic challenge on a local, national or global issue. This one semester course immerses students in professionalism, critical thinking, program solving, research, prototyping, revising, professional writing and collaboration as they consult on the topic/challenge/project given to them by their mentors (community stakeholders, business partners, higher education, local government agencies, etc). In this Honors course, students engage in research, analysis, prototyping, etc. and complete a White Paper and Formal Presentation for mentors.

Prerequisites: Successful completion of PBL 1 and PBL 2

03999/2000

Signature Courses

A Signature is a theme chosen by a school and its surrounding community, to connect classroom instruction with real-world situations and workforce skills. A Signature brings together educators with local business and community leaders to make classroom instruction relevant, interesting, and challenging for students with opportunities that connect to the 21st century workplace. Each of the 12 comprehensive high schools in Anne Arundel County offer a unique Signature Program. These programs align with AACPS goals to eliminate the achievement gap by providing all students with access to rigorous coursework.

There are multiple opportunities for students to participate in the school’s Signature Program. Signature specific classes will be available to all students on a space-available basis. Students who participate in the Signature are able to choose from specially designed courses, co-curricular and career opportunities enhanced with the school’s unique theme. These may include seminars with leaders in their field, internships, mentoring, technical and community college courses, online learning, and other real world experiences. Students may develop individual pathways and create a portfolio that demonstrates their unique skills and talents surpassing information found in a standard high school transcript.

Annapolis High School—Change Engineering

X06--0 | Change Engineering Exploration 1 0.5/sem

The Change Engineering Exploration Course provides a forum for students to connect, collaborate, solve and share knowledge toward innovating and improving the global transformation. Through a model driven approach, interactive projects and real life applications, students are challenged to identify, analyze, plan, implement and engineer change. Available at Annapolis High School only.

22161/2000

X07--0 | Change Engineering Exploration 2 0.5/sem

Students will continue to explore career opportunities related to the Signature theme. This course will help students choose the appropriate programs of study to prepare for success in the 21st century workforce. Available at Annapolis High School only.

22161/2000

Arundel High School—

Community Development and Global Citizenship

X06--1 | Community Development/Global Citizenship 1 0.5/sem

In the Community Development and Global Citizenship Explorations Course students will identify and discuss issues, events, and essential questions relevant to youth in a globalized society, consider the cultural and technological influences that have shaped our modern society, and consider how these impact the students social and professional options in the students’ future. Available at Arundel High School only.

22161/2000
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit (sem)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X06-5</td>
<td>Homeland Security Exploration 1</td>
<td>0.5</td>
</tr>
<tr>
<td>X07-5</td>
<td>Homeland Security Exploration 2</td>
<td>0.5</td>
</tr>
<tr>
<td>X07-1</td>
<td>Community Development/Global Citizenship 2</td>
<td>0.5</td>
</tr>
<tr>
<td>X06-2</td>
<td>Environmental Literacy Exploration 1</td>
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</tr>
<tr>
<td>X07-2</td>
<td>Environmental Literacy Exploration 2</td>
<td>0.5</td>
</tr>
<tr>
<td>X06-3</td>
<td>Information Management Exploration 1</td>
<td>0.5</td>
</tr>
<tr>
<td>X07-3</td>
<td>Information Management Exploration 2</td>
<td>0.5</td>
</tr>
<tr>
<td>X08-3</td>
<td>Information Management Exploration 3</td>
<td>0.5</td>
</tr>
<tr>
<td>X06-4</td>
<td>Public Service Exploration 1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Meade High School—Homeland Security**

X06-5 | **Homeland Security Exploration 1** | 0.5/sem
The Homeland Security Explorations 1 and 2 courses incorporate technologies that are applied in practical work environments and related to homeland security and emergency management. We examine various policy measures and practices as they relate to democratic values, civil responsibilities and liberties. Available at Meade High School only.

22161/2000

X07-5 | **Homeland Security Exploration 2** | 0.5/sem
The purpose of this course is designed to enhance emergency and disaster preparedness for students by providing training in the knowledge necessary for preparedness, mitigation, response, and recovery. This course provides an introduction to public health emergency preparedness, including natural disasters, unintended human acts, terrorism, and emerging threats such as a pandemic on the federal, state, local and personal levels. Available at Meade High School only.

22161/2000

**Chesapeake High School—Information Management**

X06-3 | **Information Management Exploration 1** | 0.5/sem
The introductory Signature course in Information Management will address the variety of methods used to collect, protect, manage, and finally, apply information personally, publicly, and privately. Available at Chesapeake High School only.

22161/2000

X07-3 | **Information Management Exploration 2** | 0.5/sem
The study of the collection and management of information as it related across multiple disciplines. Available at Chesapeake High School only.

22161/2000

X08-3 | **Information Management Exploration 3** | 0.5/sem
Students continue the study of collection and management of information as it relates across multiple disciplines. Available at Chesapeake High School only.

22161/2000

X11 | **Honors Homeland Security Counterterrorism & Intelligence** | 0.5/sem
This course provides an in-depth view of terrorism, transnational criminal enterprise, and the intelligence process. Students will explore social and economic issues, government policies in relation to terrorism and the role of law enforcement in counterterrorism. Topics will include a historical and contemporary study of domestic and international terrorism, psychological and sociological features of terrorism, and the impact of 9/11 on American security policies. Students will also examine the intelligence process and explore intelligence collection methodologies, intelligence tasking processes, and intelligence analysis practices. This course is available only at Meade High School.

22161/2000

X31 | **Honors Geographic Information Systems 1** | 0.5/sem
This MSDE approved course will help the student learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students and teachers will follow a course of hands-on instructions to learn skills ranging from introductory digital mapping to image analysis. In this second course on the path to STARS Entry-Level GIS Technician Certification, students are introduced to each skill with a real world application and led through the problem solving process. Follow-up applied practice application will direct the student to apply acquired skills to cases in the local community using the supplied data. This repetition will set the stage for further student driven projects. Available at Meade High School only.

22161/2000

X32 | **Honors Geographic Information Systems 2** | 0.5/sem
This MSDE approved course will help the student learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students and teachers will follow a course of hands-on instructions to learn skills ranging from introductory digital mapping to image analysis. In this second course on the path to STARS Entry-Level GIS Technician Certification, students are introduced to each skill with a real world application and led through the problem solving process. Follow-up applied practice application will direct the student to apply acquired skills to cases in the local community using the supplied data. This repetition will set the stage for further student driven projects. Available at Meade High School only.

15117/2000

**Glen Burnie High School—Public Service**

X06-4 | **Public Service Exploration 1** | 0.5/sem
The Public Service 1 course exposes students to aspects of service as provided by private, public, or non-government agencies, including topics such as infrastructure, ethics, the greater good, international relations, economics, and communications. Available at Glen Burnie High School only.

22161/2000
This course surveys the organization and operations of the commercial
Available at Meade High School only.
Available at North County High School only.
Available at North County High School only.
Spatial Analyst and 3D Analyst. The ArcGIS Spatial Analyst extension
allows students to examine the spatial relationships within
available surfaces three dimensionally. Students will also learn methods of integrating external hardware in order to
incorporate real time data from GPS units in order to accurately survey
their community. Combined with a trouble-shooting unit and general
review of skills acquired in Course 2, Course 3 can become an invaluable
tool. Available at Meade High School only.

X33 | Honors Geographic Information Systems 3 0.5sem
In GIS 3, students will learn to apply those skills. Students will learn
and apply Spatial Analyst and 3D Analyst. The ArcGIS Spatial Analyst
eX34 | Honors Geographic Information Systems 4 0.5sem
In GIS 4, an MSDE approved course, students will learn and apply
Spatial Analyst and 3D Analyst. The ArcGIS Spatial Analyst extension
allows students to examine the spatial relationships within a specific
area as well as study site suitability. The ArcGIS 3D Analyst
extension allows students to gain a different perspective on their
environment by modeling surfaces three dimensionally. Students will also learn methods of integrating external hardware in order to
incorporate real time data from GPS units in order to accurately survey
their community. Combined with a trouble-shooting unit and general
review of skills acquired in Course 2, Course 3 can become an invaluable
tool. Available at Meade High School only.

North County High School—
International Trade, Transportation, and Tourism

X06-16 | International Trade, Transportation & Tourism
Exploration 1 0.5/sem
Focusing on International Trade, Transportation and Tourism, the North
County Signature Explorations course relies on small group problem-
based projects to expose students not only to current issues in those
industries but also to viable career pathways after high school. Available at North County High School only.

X07-6 | International Trade, Transportation & Tourism
Explorations 2 0.5/sem
Available at North County High School only.

X08-6 | International Trade, Transportation & Tourism
Explorations 3 0.5/sem
This course surveys the organization and operations of the commercial
transportation industry and its impact on the bottom-line of today’s
modern businesses. Course topics include the legal and regulatory
environment, costing and pricing, major transportation options,
managing transportation partnerships and the use of information
and technology in the logistics sector. Available at North County High
School only.

X09-6 | International Trade, Transportation & Tourism
Exploration 4 0.5/sem
Available at North County High School only.

Northeast High School—Human Performance

X06-7 | Human Performance Exploration 1 0.5/sem
The Human Performance Exploration 1 Course will provide an
introduction and overview for students to explore the how health,
fitness, leisure, financial security, and environment influences quality
of life among individuals and communities. In a project/problem
based environment, integrated with human performance coursework,
students solve real-world local and global problems with their peers
using cutting-edge technology, job shadow experiences, and
internships. Available at Northeast High School only.

Old Mill High School—
International Economics and Finance

X06-8 | International Economics/Finance Exploration 1 0.5/sem
Students will work with our community through collaborative learning
opportunities in order to gain the skills and knowledge necessary to
make informed decisions and positively contribute to global economics
and finance as innovators and leaders in the 21st century. Available at Old Mill High School only.

Severna Park High School—
Business, Innovation, and Leadership

X06-9 | Business Innovation & Leadership Exploration 1 0.5/sem
In the Business, Innovation, & Leadership Signature Explorations course,
Students will gain a basic understanding of business practices, roles,
and systems, by designing innovative strategies and products. Through
participation in case studies, students will investigate the world
beyond their immediate environment and learn how to effectively
communicate their ideas with diverse audiences. Available at Severna Park High School only.

X07-9 | Business Innovation & Leadership Exploration 2 0.5/sem
In the Business, Innovation, & Leadership Exploration 2 course, students
will work collaboratively to analyze the organization of businesses,
current national and international business policies and trends through
case studies, field trips, and guest industry specialists. They will work in
teams with a mentor from the Integrated Community Stake holder
partnership to solve an innovative project based business challenge.
Students will formally present their idea to their mentor, community
stakeholders, and students. Available at Severna Park High School only.

Programs of Choice | 83
South River High School—
Global Communication and Public Affairs

X061-0 | **Global Communication & Public Affairs Exploration 1**  
0.5/sem

The GCPA Exploration 1 Course will provide an introduction and overview for students to explore the interaction of business, government, and nongovernmental organizations affecting public policy on issues that impact people both locally and globally. In a project/problem based environment, integrated with advance GCPA coursework, students solve real-world local and global problems with their peers using cutting-edge technology, job shadow experiences, and internships. Available at South River High School only.

22161/2000

X071-0 | **Global Communication & Public Affairs Exploration 2**  
0.5/sem

The GCPA Exploration 2 Course examines concepts, practices, institutions, and critical issues in public diplomacy. Students will explore the global debate on its meaning and scope in the context of today’s information environment and changes in the conduct of diplomacy and global policy. In a project/problem based environment, integrated with advance GCPA coursework, students solve real-world local and global problems with their peers using cutting-edge technology, job shadow experiences, and internships. Available at South River High School only.

22161/2000

Southern High School—
**Design: Preservation and Innovation**

X061-1 | **Design: Preservation & Innovation Exploration 1**  
0.5/sem

Students will learn how to apply a design-based model to approach, understand and solve complex real-world challenges utilizing both traditional and outside-the-box design thinking perspectives in an innovative, interactive, collaborative environment. Students will attend field trips, explore careers and colleges of interest, and interact with current working professionals in order to experience real-world challenges that provide students with practical knowledge and a pathway for future explorations. Course topics may include design thinking, graphic design, media design, urban planning, watershed management design, architecture, agriculture design, and landscape design.

22161/2000
All students graduating from high school are expected to enroll in a sequence of courses that prepares them for college and/or employment. A series of Technical Preparation courses have been designed to prepare students in a variety of technical areas. Technical Preparation is defined as a sequence of study beginning in high school and continuing through at least two years of postsecondary education. Applied academics in mathematics, science, and communications form the academic foundation for Technical Preparation. These applied courses enable students to understand complex technologies and new skill requirements in work environments. Students are prepared for highly skilled technical occupations that allow either direct entry into the workplace after high school graduation and/or continuation of study at a business/technology school or college.

In addition to a wide variety of elective courses, Career Technology Education (CTE) provides high school students an opportunity to pursue a sequential technical and academic program of study leading to advancement in a career field. These careers require varying levels of education—from high school and postsecondary certificates, to apprenticeships, or two- and four-year college degrees. Students add value to their overall education by completing CTE programs of study that provide opportunities to earn industry-recognized credentials and college credit while still in high school.

### Anne Arundel Community College Program Pathways

Program Pathways is an initiative between Anne Arundel Community College (AACC) and Anne Arundel County Public Schools (AACPS) to support successful transition of students from high school to college and careers. It is an exciting opportunity for high school students to earn free AACC credits for successfully completing high school career and technology programs.

How high school pathways can move into corresponding college degree or certificate programs at AACC, related college credit earned in high school, and meeting AACC program requirements are noted in Program Connections in each completer program where relevant.

#### High School Pathways Leading to AACC Credit

<table>
<thead>
<tr>
<th>Proficiency Credit</th>
<th>Articulated Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits earned by passing an assessment</td>
<td>Passing these courses earns credit toward equivalent AACC courses.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy of Health Professions</td>
<td>510050</td>
</tr>
<tr>
<td>Accounting &amp; Finance</td>
<td>520354</td>
</tr>
<tr>
<td>Administrative Services Management</td>
<td>520451</td>
</tr>
<tr>
<td>Auto Collision Technology/Repair</td>
<td>470635</td>
</tr>
<tr>
<td>Automotive Technician (NATEF)</td>
<td>470645</td>
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<tr>
<td>Baking &amp; Pastry (ACF)</td>
<td>120550</td>
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<tr>
<td>Biomedical Sciences: Project Lead the Way</td>
<td>511150</td>
</tr>
<tr>
<td>Building/Property Maintenance &amp; Management</td>
<td>460401</td>
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<tr>
<td>Business Management</td>
<td>520251</td>
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<tr>
<td>Career Research and Development</td>
<td>860000</td>
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<tr>
<td>Carpentry</td>
<td>465200</td>
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<tr>
<td>CASE—Curriculum for Agricultural Education</td>
<td>010050</td>
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<tr>
<td>Construction Design and Management</td>
<td>151350</td>
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<td>Cosmetology</td>
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<td>Culinary Arts (ACF)</td>
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<tr>
<td>Database Academy (Oracle)</td>
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<td>Dental Assisting</td>
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<td>Diesel Power Technology</td>
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<td>Drafting</td>
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<td>Early Childhood</td>
<td>200201</td>
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<td>Electrical—Construction Trades</td>
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<td>Environmental Resource Management</td>
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<tr>
<td>Food &amp; Beverage Management (Prostart)</td>
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<tr>
<td>Graphic Design</td>
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<tr>
<td>Heating, Ventilating, Air Conditioning (HVAC)</td>
<td>475200</td>
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<tr>
<td>Homeland Security Emergency Preparedness</td>
<td>430350</td>
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<tr>
<td>Information Technology Software</td>
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<tr>
<td>Interactive Media Production</td>
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<td>IT Networking Academy (CISCO)</td>
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<tr>
<td>Marine Repair Technology</td>
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<td>Masonry—Construction Trades</td>
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<td>Motorcycle Repair Technology</td>
<td>470606</td>
</tr>
<tr>
<td>Network Systems Administration</td>
<td>520499</td>
</tr>
<tr>
<td>Plumbing—Construction Trades</td>
<td>465500</td>
</tr>
<tr>
<td>Precision Machining (Machine Tool Operation)</td>
<td>480503</td>
</tr>
<tr>
<td>Printing Technology</td>
<td>480201</td>
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<tr>
<td>Project Lead the Way (PLTW)</td>
<td>155000</td>
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<tr>
<td>Transportation Management</td>
<td>520209</td>
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<tr>
<td>Welding—Construction Trades</td>
<td>475300</td>
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</table>

For more information, visit [www.aacc.edu/progpathways/file/AreasofStudyBrochure.pdf](www.aacc.edu/progpathways/file/AreasofStudyBrochure.pdf)
CIP 510050 | Academy of Health Professions

The Academy of Health Professions 1 is a full year course designed for 11th grade students interested in health related professions. The primary areas of study include: foundations of medicine, health sciences, and structure & function of the human body. Students will also engage in processes and hands-on procedures that are used in the delivery of essential healthcare services. Field trips to explore health career opportunities will be provided. Students can become certified in CPR / First Aid and have the opportunity to earn Proficiency Credits from Anne Arundel Community College. Successful course completion is required to proceed to the Academy of Health Professions Level 2. The Academy of Health Professions 2 course prepares 12th grade students for employment and further post-secondary education. Emphasis is placed on expanding content knowledge and skills that relate to the roles of the Nursing Assistant and Medical Assistant. Hands-on experience in various clinical settings provides exposure to diverse career opportunities. Eligible students have the opportunity to earn Maryland State CNA (Certified Nursing Assistant) and GNA (Geriatric Nursing Assistant) certifications and are expected to take the proficiency exam.

Prerequisites: Biology
Recommended: Chemistry (concurrent enrollment acceptable), Foundations of Patient Care
Note: Completion of AoHP 1 will satisfy the health education graduation requirement.
   Student must earn a grade of 70% or higher in Academy of Health Professions 1 to proceed to Level 2.

Program Connection: Anne Arundel Community College
www.aacc.edu/healthsciences

AACC: This high school completer program awards college credit.
For more information, visit www.aacc.edu/programpathways/proficiency.cfm

CIP 520354 | Accounting & Finance

Students who complete this program of study will be competent in working with accounting systems. They will learn to record business transactions, analyze and prepare income cash flow, balance sheet statements, and financial reports. Students will become skilled in accounting software (e.g. Excel, QuickBooks) and the use of the internet for financial and economic research; they will practice business decision-making and critical thinking skills. Advanced topics such as tax accounting, investing, and corporate accounting will be covered. Career pathways for accounting will be examined and the use of accounting knowledge in a variety of career clusters will be explored. Students will obtain the necessary skills to continue their education at a post-secondary institution or begin employment immediately after high school as accounting clerks. Eligible students will have the opportunity to earn college credit through dual enrollment and CLEP exams.

Program Connection: Anne Arundel Community College
www.aacc.edu/business/default.cfm

AACC: This high school completer program awards college credit.
For more information, visit www.aacc.edu/programpathways/articulated.cfm

CIP 520451 | Administrative Services Management

The Business Administrative Services Pathway provides students with knowledge of how to effectively utilize technology in the analysis, and communication of ideas; and the management, organization, and examination of information for strategic business decision making. Students are expected to think analytically; improve written and oral communication skills; enhance listening and questioning skills; learn and practice the art of conversation; broaden their awareness of career options; practice decision making and problem solving; learn the importance of communication skills in professional business practice; and utilize data to engender decisions. Upon completion of this program, students will be prepared to sit for the Microsoft Office Specialist (MOS) Certification exam, a globally recognized credential desired by academia and business.

Program Connection: Anne Arundel Community College
www.aacc.edu/business/default.cfm

AACC: This high school completer program awards college credit.
For more information, visit www.aacc.edu/programpathways/articulated.cfm
CIP 470635 | Auto Collision Technology/Repair

Techniques and spray painting in the repair of automobile bodies is offered in this two to three year course. Technician and restorer positions are available in garages, shops, and dealerships. This program is ASE (Automotive Service Excellence) Certified by the National Automotive Technicians Education Foundation.

Associated Certifications: ASE Student Certification
Required: T86 Technical Math (taught concurrently with Level 2). …………0.5/sem

Minimum Credits: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T07 Auto Collision Repair 1</td>
<td>1.0</td>
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Extension

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>T09 Auto Collision Repair 3</td>
<td>2.0</td>
<td>4.0</td>
</tr>
<tr>
<td>T701 Auto Collision Repair/Refinishing Work-Based Learning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Availability: CAT North, CAT South

CIP 470645 | Automotive Technician (NATEF)

An opportunity to learn how to inspect, repair, and adjust automobiles is provided in this two to three-year course. Positions as Specialist in alignment, engine tune up, fuel injection, brake, engine repair, trouble shooting, air conditioning and electrical systems are found in auto repair centers. This program is ASE (Automotive Service Excellence) Certified by the National Automotive Technicians Education Foundation. Students enrolled in Auto Technology 1 will be enrolled in C01 (Pre-Engineering).

Associated Certifications: ASE Student Certification
Required: T86 Technical Math (taught concurrently with Level 2). …………0.5/sem
Prerequisite: Current enrollment in Algebra 1
Program Connection: Catonsville Community College

Minimum Credits: 5

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<tr>
<th>Course</th>
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<tr>
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Extension

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<tr>
<td>T12 Automotive Technology 3</td>
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<tr>
<td>T702 Automotive Technology Work-Based Learning</td>
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<tr>
<td>C01 Honors Pre-Engineering</td>
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</table>

Availability: CAT North, CAT South

CIP 120550 | Baking & Pastry (ACF)

An opportunity to learn ingredients recognition, cost conversion, bake shop production, use of equipment, basic decorations, airbrush applications is provided in this course. Students may receive national sanitation certification and can have a job shadowing experience. Career opportunities include cake decorator, baker, caterer, consultant, food service manager. Students are eligible for college credit through Anne Arundel Community College upon successful completion of the program.

Associated Certifications: ACF
Required: T86 Technical Math (taught concurrently with Level 2). …………0.5/sem
Program Connection: Anne Arundel Community College

AACC: This high school completer program awards college credit.
For more information, visit www.aacc.edu/HCAT/credit

Minimum Credits: 4

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<tr>
<th>Course</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tr>
<td>T82 Honors Baking and Pastry 2</td>
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Extension

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<tr>
<td>T83 Honors Baking and Pastry 3</td>
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<tr>
<td>T701 Baking &amp; Pastry Work-Based Learning</td>
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</table>

Availability: CAT North

CIP 511150 | Biomedical Sciences: Project Lead the Way

The goal of the program is to increase the number of students pursuing careers in the biomedical sciences, including healthcare. Students who complete the program are prepared for employment and further education at two- and four-year college levels. Stevenson University, the Maryland PLTW Biomedical Sciences Affiliate University, will offer four (4) transcripted credits for its first semester majors biology course (BIO 113). The credit will be offered for those students who complete the entire PLTW biomed sequence of courses and score at least 80% on each end-of-course assessment.

Minimum Credits: 4

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>M35 Honors Principles of Biomedical Sciences</td>
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<tr>
<td>M36 Honors Human Body Systems</td>
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<tr>
<td>M37 Honors Medical Interventions</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>M38 Honors Biomedical Science Capstone</td>
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</table>

Availability: Glen Burnie and Northeast
CIP 460401 | Building/Property Maintenance & Management

This career education path is designed for those students who are interested in gaining a variety of skills needed to maintain and improve residential, commercial or industrial property. This program is open to juniors and seniors. It consists of six units: Building Maintenance, Floor Care, Painting, Floor Covering Installation, Fence Installation and Distribution and Warehousing. Students must have transportation for second semester senior year to be a completer in this program. The last semester will consist of a mandatory work experience or intern ship at a local business and will be supervised by the class instructor. Students are expected to take the NCCER Core Certification exam.

Associated Certifications: NCCER

Required: T86 Technical Math (taught concurrently with Level 1) ........... 0.5/sem

Minimum Credits: 6

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<thead>
<tr>
<th>Credit</th>
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<tbody>
<tr>
<td>T20 Building Maintenance 1</td>
<td>1.0</td>
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<tr>
<td>T21 Building Maintenance 2</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>T703 Building Maintenance Work-Based Learning</td>
<td>2.0</td>
<td>2.0</td>
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</table>

Availability: CAT North

CIP 520251 | Business Management

A student who completes this program pathway will be able to develop a business plan for a small business. They will apply accounting, marketing, and management concepts to realistic business scenarios. All aspects of managing a business will be discussed in addition to the competencies learned in computer applications, business communications and financial management. The business management program of study recommends that students should have access to work study, mentorship, internship, & job shadow opportunities. Students will also benefit from involvement in national professional organizations such as DECA and the Future Business Leaders of America (FBLA). This program of study does have a credit by examination through the College Board CLEP exam. The student who completes this program will be prepared to work as a management trainee, manage a small business, and continue their education after graduation.

Program Connection: Anne Arundel Community College

AACC: This high school completer program awards college credit.

For information, visit www.aacc.edu/business/default.cfm

Minimum Credits: 4

<table>
<thead>
<tr>
<th>Credit</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Q20 Principles of Business Administration &amp; Management A</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Q21 Principles of Business Administration &amp; Management B</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Q01 Accounting 1</td>
<td>0.5</td>
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<tr>
<td>Q50 Introduction to Microsoft® Office</td>
<td>0.5</td>
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<tr>
<td>Q61 Honors Business Management</td>
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<tr>
<td>Q34 Honors Entrepreneurship</td>
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<tr>
<td>Q35 E-Commerce in the Global Market</td>
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</table>

Extension

T704 Business Management Work-Based Learning | 1.0 | 2.0 |

Availability: All high schools except Southern

CIP 860000 | Career Research and Development

Career Research and Development (CRD) is a CTE program that prepares students with the academic, technical and workplace skills necessary to seek further education and employment in a career field of their interest upon graduating high school.

Minimum Credits: 4

<table>
<thead>
<tr>
<th>Credit</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Q22 Career Research &amp; Development</td>
<td>0.5</td>
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<tr>
<td>T80 Career Development Preparation &amp; Transition</td>
<td>0.5</td>
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<tr>
<td>S249 Career Research &amp; Development Work-Based Learning</td>
<td>1.0</td>
<td>2.0</td>
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</tbody>
</table>

Availability: All high schools except Severna Park, and including the Phoenix Academy and Anne Arundel Evening High School

CIP 465200 | Carpentry

An opportunity to learn to construct new buildings, handle work connected with remodeling, maintenance, and repair is provided in this two to three-year course. Positions as rough, finish or maintenance carpenter, inspector, home remodeling, project superintendent, and self-employment are included in the job opportunities. This program is certified by the National Center for Construction Education and Research (NCCER) and students may also be eligible to receive proficiency credits from Anne Arundel Community College.

Associated Certifications: NCCER

Required: T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem

Program Connection: Anne Arundel Community College

AACC: This high school completer program awards college credit.

For information, visit www.aacc.edu/architecture/ACH_Programs.cfm

Minimum Credits: 4

<table>
<thead>
<tr>
<th>Credit</th>
<th>Semester</th>
<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T22 Carpentry 1</td>
<td>1.0</td>
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</tr>
<tr>
<td>T23 Carpentry 2</td>
<td>1.5</td>
<td>3.0</td>
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</tbody>
</table>

Extension

T24 Carpentry 3
- or -
T701 Carpentry Work-Based Learning | 2.0 | 4.0 |

Availability: CAT North, CAT South
**CIP 010050 | CASE—Curriculum for Agricultural Education**

The CASE POS prepares students to be successful in numerous careers in the agricultural sciences as well as preparing them to further their education at the post-secondary level. This inquiry-based POS incorporates classroom learning, FFA leadership and career development, as well as outside of the classroom experiences through Supervised Agricultural Experiences (SAE) and other internship opportunities. In M53, Intro to Agriculture, Food, and Natural Resources with “hands-on” activities and projects. Students’ experiences will involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. Students will also explore career and postsecondary opportunities in each area of the course. Students’ experiences will involve the study of plant/human anatomy and physiology, classification, and the fundamentals of production and harvesting in M54 and M55. Finally, in the concentrated CASE courses, students will explore the science of biotechnology and its agricultural and societal implications. Students will work in teams through inquiry-based projects exploring biotechnology research methodology, DNA/gene transfer, biofuels, micropropagation, embryo transfer, transgenic materials, and microbial biotechnology. As a foundation, biochemistry and the regulations, laws, and ethics governing biotechnology will be addressed.

<table>
<thead>
<tr>
<th>Minimum Credits: 4</th>
<th>Credits per Semester</th>
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<tbody>
<tr>
<td>M53 Introduction to AFNR (Agriculture, Food, and Natural Resources)</td>
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<tr>
<td><strong>-or-</strong></td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>M55 Honors Principles of Agricultural Sciences/Animals</td>
<td>0.5</td>
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</tr>
<tr>
<td>M56 Honors Animal &amp; Plant Biotechnology</td>
<td>0.5</td>
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</tr>
<tr>
<td>M58 Honors Agricultural Business Research &amp; Development (Capstone)</td>
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</table>

Availability: Phoenix Academy, Southern

**CIP 151350 | Construction Design and Management**

This program is a four course CTE Program of Study. Students will develop an understanding of the built world through the design and construction process. Each course uses a project-based learning approach to advance students’ understanding of the design-build-maintain process. Advanced architectural drafting and design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). Throughout the program, students will develop a portfolio to demonstrate knowledge of each phase of the design and construction management process. Students will also have the opportunity to earn industry certification in AutoCAD. AACPS adopted the MSDE program and will meet all of the standards outlined in the State approved Program of Study. Additionally, each course will be expanded to include ‘real-world’ projects and problem solving to align with the school’s Signature—Community Development & Global Citizenship.

Associated Certifications: AutoCAD credentiaing
Revit Architecture certification

<table>
<thead>
<tr>
<th>Minimum Credits: 4</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD Introduction to Construction Design &amp; Management</td>
<td>0.5</td>
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</tr>
<tr>
<td>TBD Principles of Construction Design</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>TBD Honors Advanced Design and 3-D Modeling</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>TBD Honors Advanced Construction Management</td>
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</tbody>
</table>

Availability: Arundel

**CIP 120450 | Cosmetology**

Cosmetology provides students an opportunity to learn hair shaping, manicuring, hairstyling, facial massage, make-up, hair coloring and salon management. Graduates of this 1500 hour/three year program are required to sit for a state exam. Job opportunities include haircutting specialist, hair color or permanent wave technician, make-up artist, and owner-manager of a beauty salon.

Associated Certification: State Board of Cosmetology

Required: T86 Technical Math (taught concurrently with Level 2) ........ 0.5/sem

<table>
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<th>Minimum Credits: 10.5</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tr>
<td>T25 Cosmetology 1</td>
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<td>T26 Cosmetology 2</td>
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<tr>
<td>T27 Cosmetology 3</td>
<td>2.25</td>
<td>4.5</td>
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Availability: CAT North, CAT South
**CIP 120550 | Culinary Arts (ACF)**

Students will learn the use of commercial equipment, purchase food, plan menus, provide banquet buffet service, management, cook, bake, and sanitation techniques, and may be eligible to receive sanitation certification. Career opportunities include dining room management or supervisor, food service management or supervisor, food service manager, purchasing agent, proprietor, host/hostess, consultant, dietitian, caterer or cook/chef. This program is certified by the American Culinary Federation Foundation.

**Associated Certification:** ACF

**Required:** T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem

**Program Connection:** Anne Arundel Community College

www.aacc.edu/HCAT/credit

**AACC:** This high school completer program awards college credit.

For information, visit www.aacc.edu/programpathways/articulated.cfm

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**CIP 110850 | Database Academy (Oracle)**

The Oracle Database Academy Program is a nationally recognized program that prepares students for successful careers in Information Technology (IT), including database administration, database programming, IT consulting, IT project management and computer engineering. The Database Academy Program educates high school students in database programming, as well as the professional skills students require to pursue quality academic and professional opportunities. The last course in the program of study is an online course that offers dual-enrollment opportunity for students.

**Program Connection:** Anne Arundel Community College

www.aacc.edu/computertech/programs.cfm

**AACC:** This high school completer program awards college credit.

For information, visit www.aacc.edu/programpathways/articulated.cfm

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**CIP 510601 | Dental Assisting**

Students will be instructed in the areas of receptionist, chairside assistant, business office manager, and dental laboratory assistant. Clinical experiences and observations take place in a dental clinic and are supervised by a doctor of dentistry. A senior year clinical experience may be available in a dental office.

**Required:** T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem
CIP 470655 | Diesel Power Technology (State name: Diesel Engine Technology)

The Diesel Power Technology course prepares the student to service and repair a wide variety of diesel powered vehicles and equipment. This program provides training in the Inspection, diagnosis, repair and service of diesel engines, brakes, suspension & steering, electrical/ electronic systems, heating, ventilation & air conditioning, preventative maintenance Inspection, and hydraulic systems. This course has been developed in partnership with Cummins Power Systems and is certified by the National Automotive Technicians Education Foundation (NATEF).

Associated Certification: ASE Student Certification

Required: T86 Technical Math (taught concurrently with Level 2) .......... 0.5/sem

CIP 480101 | Drafting

Students will be instructed in basic drafting, orthographic projection, sketching drawings, ANSI standard lettering, blueprint reading, CAD, geometric construction, sectioning, auxiliary views, detail and assembly drawings, inking drawings, architectural layouts of floor plans and elevation drawings. Career opportunities include drafter, engineering technician, mechanical engineer, industrial designer, teacher, architect, and construction superintendent. Students may also be eligible for Proficiency Credits from Anne Arundel Community College.

Required: T86 Technical Math ................................................................. 0.5/sem

Note: Completion of M20 and M21(Engineering Drawing/ CAD 1/2) (C or better) may be taken for two Semesters in the home school Technology Education Program to satisfy the requirements for T31.

Program Connection: Anne Arundel Community College

www.aacc.edu/engineering/CAD/default.cfm and www.aacc.edu/architecture/ACH_Programs.cfm

AACC: This high school completer program awards college credit.

For information, visit www.aacc.edu/programpathways/proficiency.cfm

CIP 200201 | Early Childhood

This completer program is designed for students who wish to pursue a career in the field of early childhood care and education. The course sequence provides performance-based training and assessment, which prepares students for both work and college. A senior year internship is required. Students have the opportunity to earn the 90 clock hour certification.

Program Connection: Anne Arundel Community College:

www.aacc.edu/childcare/default.cfm

AACC: This high school completer program awards college credit.

For information, visit www.aacc.edu/programpathways/articulated.cfm

CIP 465300 | Electrical—Construction Trades

Students will be instructed in wiring diagrams and schematics, electrical safety, wiring methods, blueprint reading, furnace controls, wiring heat lamps and air condition electrical motors and starters is provided. Career opportunities include line meter installer, cable splicer, wire-person, inspector, trouble shooter, motor repair person, control expert, distribution panel installer, electrical contractor or self employment. This program is certified by the National Center for Construction Education and Research (NCCER).

Associated Certifications: Core Level 1 NCCER

Required: T86 Technical Math (taught concurrently with Level 2) .......... 0.5/sem

Recommended: Completion of Algebra 1 (C or better)
CIP 030103 | **Environmental Resource Management**

The Environmental Resource Management Program will give students working knowledge and first-hand experience in the areas of: Water Resource, Fisheries/Wildlife, Soil, Forests, and Watershed Restoration. Instruction will include classroom, hands-on, lab, field, and project based activities, while incorporating instruction in various environmental technologies including GIS and GPS. Students will work in close association with Arlington Echo’s Chesapeake Connections program, community, private, and local government programs. The Natural Resource Management program will utilize the Chesapeake Bay Watershed as a model and for sites for work experience and study. Upon completion of the program, students will have acquired knowledge and work experience to aid them in further study or employment in fields such as: fish or forestry technicians, environmental engineers, wildlife managers, park rangers, naturalists, environmental scientists, and landscape workers. Students may earn proficiency credit from Anne Arundel Community College upon successful completion of the program.

**Required:** Environmental Science

**Program Connection:** Anne Arundel Community College

For information, visit www.aacc.edu/science/biology.cfm

AACC: This high school completer program awards college credit.

**Minimum Credits:** 4.5

<table>
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**Extension**

<table>
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<tr>
<td>T701</td>
<td></td>
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</tr>
</tbody>
</table>

**Availability:** CAT North

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CIP 520955 | **Food & Beverage Management (Prostart)**

The ProStart program introduces high school students to a wide variety of careers within the restaurant, food service and hospitality industry. Students will study and practice professional food preparation, preparation of international cuisines, food safety and sanitation, customer service relations, accounting, cost control, marketing and an introduction to aspects of lodging management. Students will follow the National Restaurant Association Educational Foundation industry standard curriculum with the potential to earn a ProStart and ServSafe certification. Senior year, students must complete a 270 hour work-based learning experience. In addition, for ProStart Certification, the student internship must allow them to complete 52 competency goals plus an additional 130 hours.

**Program Connection:** Anne Arundel Community College

For information, visit www.aacc.edu/HCAT/credit

AACC: This high school completer program awards college credit.

**Minimum Credits:** 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tbody>
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<td>H77</td>
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<tr>
<td>H78</td>
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</tr>
<tr>
<td>H74</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Availability:** All high schools, Phoenix Academy, and Anne Arundel Evening High Schools

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CIP 480299 | **Graphic Design** (State name: Digital Media & Web Design/Development) **Minimum Credits:** 4

Students will be introduced to publication design as a means of communication with a focus on studying and applying layout and design concepts used in the fields of graphic design, web page design and printing. Students use the Macintosh computer with software applications to learn basic page layout techniques, photo manipulation, advertising design, and digital illustration. Career opportunities exist as a graphic artist, ad designer, web page designer, and pre-press operator.

**Minimum Credits:** 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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</thead>
<tbody>
<tr>
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<td>1.0</td>
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<tr>
<td>T17</td>
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**Extension**

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<th>Course Code</th>
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<tbody>
<tr>
<td>T704</td>
<td>2.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Availability:** CAT North, CAT South

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CIP 475200 | **Heating, Ventilating, Air Conditioning (HVAC)**

Basic principles and practical applications to the Air Conditioning and Heating Industry are introduced in this course. Electro-Mechanical Theory, basic electric ity, and wiring diagrams are studied. Outcomes include trouble shooting, maintenance, wiring diagram, ducting, and repair of central heating and air conditioning systems. Jobs are available in manufacturing, wholesaling, retailing, and building maintenance. This program is certified by the National Center for Construction Education and Research (NCCER).

**Associated Certification:** Core Level 1 NCCER

**Required:** T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem

**Minimum Credits:** 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits per Semester</th>
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**Extension**

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<th>Course Code</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>T702</td>
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</tr>
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</table>

**Availability:** CAT North, CAT South
### CIP 430350 | Homeland Security Emergency Preparedness

The Homeland Security and Emergency Preparedness (HS/EP) Program is a Career and Technology Education instructional program which integrates government, academia, and private sector training/educational initiatives to help students understand how the United States and its interests worldwide are protected against threats to public safety, both natural and man made, through effective communication, preparedness, detection, prevention, response and recovery.

**Program Connection:** Anne Arundel Community College  
[www.aacc.edu/homeland/default.cfm](http://www.aacc.edu/homeland/default.cfm)

**AACC:** This high school completer program awards college credit.  
For information, visit [www.aacc.edu/progpathways/proficiency.cfm](http://www.aacc.edu/progpathways/proficiency.cfm)

<table>
<thead>
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<td>X31</td>
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<tr>
<td>X32</td>
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<td>X33</td>
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<td>X34</td>
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<tr>
<th>Extension</th>
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<tbody>
<tr>
<td>T04 Homeland Security Work-Based Learning</td>
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</tbody>
</table>

### CIP 110250 | Information Technology (IT) Software—Computer Sciences

The Information Technology (IT) Software Pathway program, Computer Science, prepares students for further study and careers in the field of Computer Science. Students complete a sequence of four courses, starting with an overview of the Computing and Information Technology field and progressing through a more in-depth study of computer science. Throughout the program, students will learn all aspects of Computer Science including: programming, hardware design, networks, graphics, databases and information retrieval, cyber security, software design, programming languages, logic, programming paradigms, translation between levels of abstraction, artificial intelligence, the limits of computations, applications in information technology and information systems, and social issues (Internet security, privacy, and intellectual property). Upon completion of the program sequence, students may earn college credit for introductory-level Computer Science through Advanced Placement (AP) Computer Science exam(s). In addition, students may earn industry certification as a Microsoft Technology Associate (MTA). Certification options include Software Development Fundamentals (Exam 98-361), Windows Development Fundamentals (Exam 98-362), or Web Development Fundamentals (Exam 98-363). Students in the Computer Science CTE Program of Study are required to take at least one of the assessment options listed above (leading to industry certification and/or early college credit).

**Associated Certifications:** Software Development Fundamentals (Exam 98-361), Windows Development Fundamentals (Exam 98-362), Web Development Fundamentals (Exam 98-363)

<table>
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<tr>
<th>Course Code</th>
<th>Minimum Credits: 4</th>
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<tbody>
<tr>
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<thead>
<tr>
<th>Availability: Chesapeake and Meade</th>
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</table>

### CIP 100150 | Interactive Media Production

The IMP program will enable students to create a range of projects by combining sound, video, graphics, animation, and web technology. These media tools are used by business and industry to develop content for marketing, training, and entertainment. Students will prepare for the Adobe Creative Suite Certification(s) and/or Web Design (WOW) industry certifications, and also have the opportunity to earn college credit toward advanced study.

**If taking this program at the high school, these courses are required:**
- Q16 Honors Interactive Media Production 1...1.0
- Q17 Honors Interactive Media Production 2 ...1.0
- Q18 Honors Interactive Media Production 3 ...1.0
- Q19 Honors Interactive Media Production 4 ...1.0

**If taking this program at CAT South, these courses are required:**
- Q16 Honors Interactive Media 1...1.0
- Q17 Honors Interactive Media 2 (also meets requirements of Q18 and Q19) ...3.0

**Available at:** CAT South, Chesapeake, Old Mill, Severna Park

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>Q16</td>
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<tr>
<td>Q17</td>
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<table>
<thead>
<tr>
<th>Availability: CAT South, Chesapeake, Old Mill, Severna Park</th>
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### Credits per Semester Maximum Possible

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<tr>
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<td>X34</td>
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<tr>
<th>Extension</th>
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<tbody>
<tr>
<td>T04 Homeland Security Work-Based Learning</td>
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</tbody>
</table>
CIP 110950 | IT Networking Academy (CISCO)

Students will be taught the conceptual and technical skills to design, install, operate and maintain state-of-the-art computer networks. Each participant will have the opportunity for theory, component recognition, cabling techniques and design. This two year course is a Cisco Systems Certified program and students can elect to test for accredited industry standard networking certification (Cisco Certified Entry Networking Technician (CCENT) and Cisco Certified Network Associate (CCNA) during the second year of the program.) Students may be eligible to earn proficiency credits from Anne Arundel Community College upon successful completion of the program.

Required: T86 Technical Math (taught concurrently with Level 2) .......... 0.5/sem
Prerequisites: Algebra 1 (C or better)
Program Connection: Anne Arundel Community College
www.aacc.edu/computertech/cis_prog.cfm
AACC: This high school completer program awards college credit.
For information, visit www.aacc.edu/programpathways/proficiency.cfm

CIP 490306 | Marine Repair Technology

Standards and guidelines set by the American Boat & Yacht Council (ABYC) are incorporated in this program and supported by ABYC. Students will learn boat related skills in carpentry, marine wiring, diagnoses and repair of marine engines, painting, refinishing, plumbing, fiberglassing and rigging. Career possibilities include crew member, refinishing, rigging, carpentry, fiberglass fabrication and repair, sales, and cleaning and maintenance.

Required: T86 Technical Math (taught concurrently with Level 2) .......... 0.5/sem

CIP 521451 | Marketing

In the Marketing pathway, students learn about the consumer's role, research in global marketing, developing a marketing plan and the importance of ethics and social responsibility. Internships and mentored projects are highly recommended. Graduates may earn college credit through articulation agreements, dual enrollment or by taking the Principles of Marketing CLEP Exam.

CIP 465100 | Masonry—Construction Trades

Students will learn to work with brick, block, stone and concrete. They will be able to estimate the cost of materials, read blue prints, and layout projects. Career opportunities in this trade offer a promising future for graduates as a Masontender, Bricklayer, Layout person, Foreman, Estimator, Superintendent, and Contractor. This program is certified by the National Center for Construction Education and Research (NCCER).

Associated Certifications: Core Level 1 NCCER
Required: T86 Technical Math (taught concurrently with Level 2) .......... 0.5/sem
**CIP 470606 | Motorcycle Repair Technology** (State name: Small Engine Repair)

Students will develop skills in the operating principles of motorcycle engines, primary and secondary driveline, electrical systems, systematic troubleshooting and generally accepted repair, service, and maintenance procedures. The course of study includes career opportunities in motorcycle and sport watercraft service, repair, and sales.

**Required:** T86 Technical Math ................................................................. 0.5/sem

**Minimum Credits: 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits per Semester</th>
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</thead>
<tbody>
<tr>
<td>T74 Motorcycle Repair Technology 1</td>
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<td>T75 Motorcycle Repair Technology 2</td>
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**Extension**

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<th>Course Code</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T76 Motorcycle Repair Technology 3</td>
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<tr>
<td>T703 Motorcycle Repair Tech Work-Based Learning</td>
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</tbody>
</table>

**Availability:** CAT North

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**CIP 520499 | Network Systems Administration**

As a student in this two-year program, you will learn the networking skills to install applications and systems, work with multiple operating systems, setup and configure network hardware and software, install and configure TCP/IP protocol on workstations and servers, troubleshoot and maintain a network server, work in a team setting, use HTML. Students will be eligible to sit for IC3, MOS, A+, and Net+ exams. Students may also be eligible to receive proficiency credits from Anne Arundel Community College.

**Required:** T86 Technical Math (taught concurrently with Level 2) ............... 0.5/sem

**Program Connection:** Anne Arundel Community College

www.aacc.edu/computertech/cis_prog.cfm

AACC: This high school completer program awards college credit.

[For information, visit www.aacc.edu/programpathways/proficiency.cfm]

**Minimum Credits: 4**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>Q55 Honors Network Systems Administration 1</td>
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<tr>
<td>Q56 Honors Network Systems Administration 2</td>
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**Extension**

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<th>Course Code</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T703 Network Systems Administration Work-Based Learning</td>
<td>2.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Availability:** CAT North

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**CIP 465500 | Plumbing—Construction Trades**

Students will be instructed in the areas of soldering, brazing, repairing sinks and toilets, repairing water heaters, reading blueprints and designing bathrooms. A senior year internship is available, which can lead to an Apprenticeship program. Career opportunities exist as plumber, gas fitter, maintenance engineer, engineer, steam fitter, sprinkler system mechanic, boiler mechanic, plumbing sales representative, service person or estimator. This program is certified by the National Center for Construction Education and Research (NCCER).

**Associated Certifications:** Core Level 1 NCCER

**Required:** T86 Technical Math (taught concurrently with Level 2) ............... 0.5/sem

**Program Connection:** Catonsville Community College

Community College of Baltimore County

**Minimum Credits: 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits per Semester</th>
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</thead>
<tbody>
<tr>
<td>T52 Plumbing 1</td>
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<td>T53 Honors Plumbing 2</td>
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**Extension**

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<tr>
<th>Course Code</th>
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<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T54 Plumbing 3</td>
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<td>4.0</td>
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<tr>
<td>T703 Plumbing Work-Based Learning</td>
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</tbody>
</table>

**Availability:** CAT North, CAT South

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**CIP 480503 | Precision Machining (Machine Tool Operation)**

Students will develop skills to read and interpret prints, use precision measuring instruments and hand tools. Students will efficiently setup and operate drill presses, vertical milling machines, engine lathes and grinders. Students will also develop CNC programs using software applied in the industrial field. Career opportunities include Machinist, Maintenance Machinist, Instrument Maker, Inspector, Tool and Die Maker, Shop Supervisor and Engineer.

**Required:** T86 Technical Math (taught concurrently with Level 2) ............... 0.5/sem

**Minimum Credits: 4**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>T46 Precision Machining 1</td>
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<td>T47 Honors Precision Machining 2</td>
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**Extension**

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<th>Course Code</th>
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<tbody>
<tr>
<td>T48 Precision Machining 3</td>
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<tr>
<td>T703 Precision Machining Work-Based Learning</td>
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</tbody>
</table>

**Availability:** CAT North

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CIP 480201 | **Printing Technology** (State name: Graphic & Printing Technology)

Students will have the opportunity to learn all aspects of the printing process including: digital printing, digital file management, offset lithography, binding and finishing, and production planning. Students will learn to use iMac computers, Adobe Suite, computer to plate system, printing press, and bindery equipment. Students will develop an understanding of inventory and cost control, electronic prepress and employment responsibilities. Career opportunities include: pressman or bindery operator, prepress technician, production planning, purchasing and customer service.

**Associated Certifications:** PrintED

**Required:** T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem

<table>
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<th>Minimum Credits: 4</th>
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<tbody>
<tr>
<td>T40 Printing Technologies 1</td>
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<td>T41 Printing Technologies 2</td>
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| T42 Printing Technologies 3  
-or-  
T703 Printing Technology Work-Based Learning | 2.0  | 4.0 |

**Availability:** CAT North

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<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tbody>
<tr>
<td>T40 Printing Technologies 1 (daily yearlong)</td>
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<tr>
<td>T41 Printing Technologies 2 (daily single semester)</td>
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<tr>
<td>T42 Printing Technologies 3 (daily single semester)</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Extension</strong></td>
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</tr>
<tr>
<td>T703 Printing Technology Work-Based Learning</td>
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</table>

**Availability:** Phoenix Academy

CIP 155000 | **Project Lead the Way (PLTW)—Pre-Engineering**

Project Lead The Way (PLTW) is a CTE instructional program that incorporates the national standards of The National Council of Teachers of Mathematics, the National Science Standards and the International Technology Education Association. The program prepares students for further education and careers in engineering and engineering technology. The list of courses provided meet the criteria of the Project Lead the Way Program. Specialty courses are selected by the school and not all courses listed are offered at every PLTW school.

**Program Connection:** Anne Arundel Community College  
[www.aacc.edu/engineering/default.cfm](http://www.aacc.edu/engineering/default.cfm)

**AACC:** This high school completer program awards college credit.

For information, visit [www.aacc.edu/programpathways/articulated.cfm](http://www.aacc.edu/programpathways/articulated.cfm)

<table>
<thead>
<tr>
<th>Minimum Credits: 4</th>
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<tbody>
<tr>
<td>M25 Honors Principles of Engineering</td>
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<tr>
<td>M26 Honors Engineering Design</td>
</tr>
<tr>
<td>M27 Honors Digital Electronics</td>
</tr>
<tr>
<td>M28 Honors Computer Integrated Manufacturing</td>
</tr>
<tr>
<td>M30 Honors Aerospace Engineering</td>
</tr>
<tr>
<td>M44 Honors Engineering Design &amp; Development</td>
</tr>
<tr>
<td>M49 Honors Civil Engineering &amp; Architecture</td>
</tr>
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</table>

**Availability:** Glen Burnie, Meade, Severna Park, South River

CIP 520209 | **Transportation Management**

In response to community demands for career-ready high school graduates, North County High School offers students unique thematic courses and co-curricular opportunities that are challenging and workforce relevant and may include technical, community college, and/or four-year college pathways. This is the first completer program that directly supports AACPS Signature initiatives. Students will experience purposeful, real-world learning, career opportunities, transportable credentials and higher education experiences. This program combines Career and Technology Education with Early College Access, and will allow students to graduate with 18 college credits and a Certification in Transportation, Logistics and Cargo Security, while preparing them to earn the Global Logistics Associate (GLA) Industry Certification. The program is a combination of courses developed by both AACPS and AACC. The six AACC courses are taken through the dual credit program.

**Associated Certifications:** Transportation, Logistics and Cargo Security Certificate (AACC)  
Global Logistics Associate (GLA) Industry Certification

**Program Connections:** Anne Arundel Community College  
[www.aacc.edu/business/default.cfm](http://www.aacc.edu/business/default.cfm)

**AACC:** This high school completer program awards college credit.

For information, visit [www.aacc.edu/programpathways/articulated.cfm](http://www.aacc.edu/programpathways/articulated.cfm)

<table>
<thead>
<tr>
<th>Minimum Credits: 4</th>
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</thead>
</table>
| X06 International Trade, Transportation & Tourism Exploration 1  
X07 International Trade, Transportation & Tourism Exploration 2  
X08 International Trade, Transportation & Tourism Exploration 3  
X09 International Trade, Transportation & Tourism Exploration 4 | 0.5  | 1.0 |

**Availability:** North County
Students will be instructed in blueprint reading, oxy-acetylene welding and cutting, brazing, arc welding, plasma cutting and welding, and pulse MIG welding. Career opportunities exist as production welder, machine operator, job shop welder, fabricator, pipe line welder, sheet metal mechanic and welder, construction welder, and welding shop owner. This program is certified by the National Center for Construction Education and Research (NCCER).

Associated Certifications: Core Level 1 NCCER

Required: T86 Technical Math (taught concurrently with Level 2) ........... 0.5/sem

Minimum Credits: 4

<table>
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<tr>
<th>Course</th>
<th>Credits per Semester</th>
<th>Maximum Possible</th>
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<tr>
<td>T61 Welding 1</td>
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<tr>
<td>T63 Welding 3</td>
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<tr>
<td>T703 Welding Work-Based Learning</td>
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Availability: CAT North, CAT South
## Scheduling Worksheets

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<table>
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<th>Fall Semester</th>
<th>A-Day</th>
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### Anne Arundel County High Schools

<table>
<thead>
<tr>
<th>School Name</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Annapolis High School</td>
<td>410-266-5240</td>
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<tr>
<td>Arundel High School</td>
<td>410-674-6500</td>
</tr>
<tr>
<td>Broadneck High School</td>
<td>410-757-1300</td>
</tr>
<tr>
<td>Chesapeake High School</td>
<td>410-255-9600</td>
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<tr>
<td>Glen Burnie High School</td>
<td>410-761-8950</td>
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<tr>
<td>Meade High School</td>
<td>410-674-7710</td>
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<tr>
<td>North County High School</td>
<td>410-222-6970</td>
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<td>Northeast High School</td>
<td>410-437-6400</td>
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<td>Old Mill High School</td>
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<tr>
<td>Severna Park High School</td>
<td>410-544-0900</td>
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<td>South River High School</td>
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<td>Southern High School</td>
<td>410-867-7100</td>
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### Other Educational Centers

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<tr>
<td>Center of Applied Technology-North</td>
<td>410-969-3100</td>
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<tr>
<td>Center of Applied Technology-South</td>
<td>410-956-5900</td>
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<td>Mary E. Moss @ J. Albert Adams Academy</td>
<td>410-222-1693</td>
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<td>Phoenix Academy</td>
<td>410-222-1650</td>
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<td>Studio 39</td>
<td>410-280-1501</td>
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### Charter Schools

<table>
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<th>School Name</th>
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<tr>
<td>Chesapeake Science Point</td>
<td>443-757-5277</td>
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</table>
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