High School 2026 2027

Program of Study

Anne Arundel County Public Schools

AACPS Graduation Requirements at a Glance

Students must attend high school for four years unless a pre-approved AACPS alternative is satisfied.

Minimum Credits Required for Graduation—23 (beginning with students graduating in 2027)

With 23 credits as a required *minimum*, students have more opportunity to take college courses, explore their interests though electives, or recover lost credit. Students will also have more time to participate in career connected learning options, such as internships and apprenticeships.

Core Academic Subjects	**English**	**4.0**	1 credit in *English 9* 1 credit in *English 10* 1 credit in *English 11* 1 credit in *English 12*
	Social Studies	**3.0**	1 credit in *History of the United States* 1 credit in *United States Government* 1 credit in *World History*
	Mathematics Students seeking admission to a University System of Maryland institution should review details of math elective requirements with a school counselor.	**4.0**	1 credit in *Algebra 1* 1 credit in *Geometry* 2 mathematics elective credits (*Algebra 2* for college completers) Students are required to take a rigorous math course each of the four years the student is enrolled. See the *AACPS Possible Math Course Sequence* chart in the *Mathematics* course section
	Science See *Magnet & Signature Program Requirements*, below	**3.0**	1 credit in *Biology* 1 credit in a Physical Science 1 credit in an Earth Space Science See "High School Science Graduation Requirements (MSDE COMAR)" on page 140 for a list of course options.
Physical Education		**1.0**	0.5 credit of *Fitness for Life* 0.5 credit Physical Education Elective
Health		**1.0***	0.5 credit in *Health A* 0.5 credit in *Health B** (beginning with the class of 2025)
Basic Technology		**1.0**	For a list of qualifying courses, see "Courses that Qualify for Basic Technology Credit" on page 64.
Fine Arts		**1.0**	Music, Art, Dance, and Theatre Arts courses
Citizenship		**0.5**	0.5 credit in *Global Community Citizenship*
Financial Literacy		**0.5**	0.5 credit in Financial Literacy (beginning with students entering grade 9 in fall, 2026) For a list of qualifying courses, see "Financial Literacy Requirement" on page 2.
Electives		**4.0**	Any electives that result in the successful completion of a Completer Program Pathway
Completer Program Requirements			Students must choose and follow course selections for a Completer Program Pathway: • *College Completer* • *Career Completer* • *Dual Completer*
Magnet & Signature Program Requirements			May require 3, 4, or 5 credits of Science and World Language.

Program of Study Contents

Four Steps to Graduation

1 Earn a minimum of **23 Credits** (beginning fall 2026)

2 Complete **75 hours of Service Learning** in grades 5–11

3 Choose a **Completer Program Pathway**

4 Take **State-mandated Assessments** in *Algebra*, *English*, *Government*, *Science*

Completer Pathways

(See "Completer Program Pathways" on page 3.

High School Diploma

2 credits of **the same Language**

or

A CTE Completer Program

College Completer

(post-secondary education after high school)

Algebra 2

+

2 credits of **the same Language**

Career Completer

(employment and/or-post secondary education after high school)

A CTE Completer Program

Dual Completer

(employment and/or post-secondary education after high school)

Algebra 2

+

2 credits of **the same Language**

and

A CTE Completer Program

Procedures for Promotion

Promotion from one grade level to the next is based on the number and types of credits earned.

To be promoted to grade:	10	11	12
Completed credits needed	6	13	18
...in core academic subjects *(English, Mathematics, Science, and Social Studies)*	*3*	*7*	*10*

To be considered a senior, a student must:

- have completed at least three years in high school,
- have successfully earned 18 credits towards graduation requirements

and

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

A Portrait of a Graduate

This booklet contains a wealth of information related to the robust programs of study available to AACPS students. Our focus is to prepare all students for a pathway leading to college, career, and community endeavors. We are committed to preparing our students to become literate, independent, caring, and contributing adults who successfully navigate and positively impact the 21st century global society.

In PreK–12 formal and informal learning settings, we will offer all students important and relevant content, tools, skills, and experiences so every student is able to confidently build and cross their own unique bridge from school to community engagement, workforce participation, and college enrollment.

Career and College Readiness (CCR)

As part of the state's Blueprint for Maryland's Future, AACPS works with the aim that all students will reach CCR by the end of 10th grade. Achieving this milestone opens the door to advanced Post-CCR Pathways, where students can continue to grow their skills and explore their future. These opportunities include rigorous academic options such as Advanced Placement (AP) and International Baccalaureate (IB) courses, dual-enrollment through the Early College Access Program (ECAP), and hands-on learning in Career and Technical Education (CTE) programs. Each pathway empowers students to build on their achievements and prepare for success in college, careers, and life.

To find out how a student can meet Collge and Career Rediness standards, visit www.aacps.org/ccr.

AACPS Portrait of a Graduate

Future-Ready
I set ambitious goals, create and implement flexible plans, and use my knowledge and skills to live independently, learning, growing, and thriving in an ever-changing world.

Effective Collaborator
I form meaningful relationships, skillfully communicate, and work with diverse groups of people to achieve common goals.

Critical Thinker
I analyze and evaluate information, resources, perspectives, and experiences to weigh opinions, formulate well-reasoned conclusions, solve problems, and navigate challenges.

Curious Learner
I ask questions, explore ideas, and embrace new opportunities so I can understand the world and build a better future for myself and my community.

Empathetic Community Member
I demonstrate sensitivity, concern, understanding, and respect for the experiences and feelings of others to better the community.

ANNE ARUNDEL COUNTY PUBLIC SCHOOLS
Belong. Grow. Succeed.

Considerations for Graduation

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 13A.03.02.04) states that credit toward high school graduation may be earned by middle school students if the student has taken a high school level course meeting the local school system curricular objectives.

As a result, middle school students in Anne Arundel County Public Schools must earn a final passing course grade 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 Foundations of Computer Science 1A and 1B taken while in middle school.

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 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.

Students transferring into AACPS with high school credit from another district will have their course history evaluated by content coordinators to determine if AACPS will acknowledge/accept the credit.

Parents of students enrolled in the above-mentioned courses are asked to sign and return a letter to indicate their understanding of the above information.

Service Learning Requirement

Service Learning is a structured learning experience that provides students with the opportunity to develop a sense of empathy and compassion as they actively engage in meaningful projects that address real community needs. 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.

Service Learning Implementation in AACPS

Students will earn 35 of the required 75 service learning hours in grades 5–8 as outlined in the middle school Program of Study.

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 : 10 hours
- English 11: 10 hours
- Health: 10 hours

Students who attend on of our IB high schools will earn a portion of their required service learning hours through interdisciplinary coursework and projects including but not limited to IB MYP Personal Project and the IB DP CAS requirements, and the IB CP Service Learning component.

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

World Languages Requirement

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

Financial Literacy Requirement

Students entering ninth grade in the fall of 2026 and beyond will be required to complete a course in Financial Literacy. Any of the following courses meet this requirement:

- X43 Financial Literacy
- D01 Algebraic Applications—Daily Living
- Q63 Personal Finance
- B51 AP Economics—Macro
- B52 AP Economics—Micro
- Q09 AP Business with Personal Finance

Completer Program Pathways

Students are required to take a rigorous math course in each of the four years the student is enrolled in high school and to be enrolled in Algebra 2 or beyond during senior year for the College Completer.

The Every Student Succeeds Act (ESSA) 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* • *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 Language (UMD accepts American Sign Language) and 4 high school math credits that must include Algebra 1, Geometry, and Algebra 2.

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 in the chart, individual campuses and programs may have additional admission requirements. Students should seek out these requirements by contacting the admissions director at the campus of choice.

In addition to the University System of Maryland institutions below, 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.

Career Completer

The student pursues a sequence of courses to develop skills in preparation for future employment and/or post-secondary education upon high school graduation. Select courses and programs are offered at every high school and both Centers of Applied Technology. 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. For connections between high school coursework and opportunities at Anne Arundel Community College, see "Earning College Credit" on page 19.

Students can select from nearly 40 Career Completer programs to gain a combination of technical and academic expertise that can be utilized for immediate employment or students may 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.

<table>
<tr><th>College Completer
The University System of Maryland</th><th colspan="2">Career Completer Programs
(see "AACPS Career Institutes" on page 15)</th></tr>
<tr><td>Required Credits
English — 4 credit
Social Studies — 3
Laboratory Science — 3
Mathematics — 4 (including Algebra 2)
World Language — 2 (same language)
Academic Electives — 6</td><td rowspan="2">Animation and Game Development
Architecture Design & Drafting
Automotive Collision Repair & Refinishing
Automotive Technology
Baking & Pastry Arts
Barbering
Biomedical Science
Carpentry
CASE: Natural Resources
CASE: Plant and Animal Science
Certified Clinical Medical Assistant
Certified Nursing Assistant
Computer Programming
Cosmetology
Criminal Justice & Law Enforcement
Culinary Arts
Cybersecurity
Dental Assistant
Early Childhood Education</td><td rowspan="2">Electrical Engineering
Facilities Management
Financial Services and Accounting
Graphic Communications
HVACR
Junior Reserve US Armed Forces (JROTC)
Management & Entrepreneurship
Marine Maintenance & Repair
Marketing Services
Masonry
Medium/Heavy Truck Technician
Natural Resources and Conservation
Networking
Pharmacy Technician
Physical Rehabilitation
Plumbing
Teacher Academy of MD
Video & Audio Production
Welding</td></tr>
<tr><td>Participating Universities
Bowie State University
Coppin State University
Frostburg State University
Salisbury University
Towson University
University of Baltimore
University of Maryland Campuses
Baltimore | Baltimore County | College Park
Eastern Shore | Global Campus</td></tr>
</table>

Graduation Certificates

Maryland High School Certificate

The Maryland High School Certificate of Program Completion (See COMAR 13A.03.02.09E) shall be awarded only to students with disabilities who cannot meet the requirements for a diploma but who meet the following standards:

a. The student is enrolled in an education program for at least 4 years beyond grade 8 or its age equivalent, and is determined by an IEP team, with the agreement of the parents of the student with disabilities, to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life, including but not limited to:
   - Gainful employment
   - Post-secondary education and training
   - Supported employment and
   - Other services that are integrated in the community,

or

b. The student has been enrolled in an education program for 4 years beyond grade 8 or its age equivalent and will have reached age 21 before the first day of the next school year.

The Maryland Summary of Performance that describes the student's skills shall accompany the Maryland High School Certificate of Program Completion.

The final decision to award a student with disabilities a Maryland High School Certificate of Program Completion will not be made until after the beginning of the student's last year in high school.

A student with significant cognitive disability may not meet high school graduation requirements if a student:

a. Participates in an Alternative Assessment based on Alternative Academic Achievement Standards (AA-AAAS); and

b. Continues to receive instruction based on Alternative Academic Achievement Standards through high school.

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 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. Project Search, On-Campus Transition Program). The student will be awarded the Maryland High School Certificate upon completion of the alternative program.

College & Career Planning

Naviance Student

AACPS has partnered with Naviance Student to provide high school students with a variety of online tools to support student achievement through academic planning. Naviance Student affords students the life, college, and career readiness skills that prepare them for post-graduation.

Naviance Student provides students with 6 key competencies: social-emotional learning, career knowledge, college knowledge, interpersonal skills, academic skills, and transition skills as they matriculate through each grade. Each grade level is assigned activities tasks based on developmental level.

Students and families have access to online resources that assist in communicating with school staff and collaborate on college and career readiness activities. Students research careers, colleges, and scholarships in one location, as well as explore career assessments. They can also create career pathway plans that can be linked to college and career readiness. Students have the ability to request transcripts and staff recommendations for college applications. Students can also create goals and track completion of college and career exploration activities. To find out more about Naviance Student, contact your child's School Counseling Office.

To sign into your account, go online to:
https://succeed.naviance.com/auth/signin

Taking Advanced Courses

Weighted Grading

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

- An additional 0.5 quality points for an Honors or Honors IB MYP course.
- An additional 1.0 points for an AP, IB DP, or Advanced 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 student's GPA. An A received in an Honors or an Honors IB MYP course is worth 4.5 points and in an AP, IB DP, or Advanced course is worth 5 points. These courses may require pre-course assignments as preparation for accelerated classroom learning.

Honors Courses

Honors courses are designed to be challenging while enhancing a student's ability to employ critical thinking and analysis skills. The level of performance in these courses prepare students for college and career readiness. Honors courses are distinguished by a difference in the depth and scope of work required.

Advanced Placement (AP) and International Baccalaureate (IB)

AP and IB course offerings support academic rigor in the high school setting. Student commitment is critical. Withdrawal from AP courses will not be considered until the end of the first marking period to allow for acclimation and teaching/learning support. 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 CCR Division/IB Office, 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 based on student performance on an AP test. Information regarding advanced placement courses and tests are available from high school counseling offices. Students are not required to take an advanced course in order to be eligible to sit for an advanced placement examination. A student's report card grade for an AP course is determined by the classroom teacher. It is not a reflection of the results of the Advanced Placement test.

IB Middle Years Programme (IB MYP)

IB High School Magnet students in grade 9 IB MYP courses are enrolled in Honors level English, AP or Honors US History, Biology, Algebra 1, Geometry or Algebra 2, French, Italian, Mandarin or Spanish Level 2 or 3, and elective offerings. IB High School Magnet students in IB MYP grade 10 are enrolled in Honors level English, AP or Honors American Government, Chemistry, Geometry, Algebra 2 or Pre-Calculus, French, Italian, Mandarin or Spanish 3 or 4, and elective offerings. Note that not all IB MYP courses receive additional weighting.

International Baccalaureate Diploma Programme (IB DP)

The IB DP is a rigorous and challenging program of studies for students in grades 11 & 12. The IB 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. IB DP students have the option of earning a bilingual IB Diploma.

Students may apply to the Diploma Programme through the second semester of the sophomore year. In addition to the Magnet application process, interested applicants should discuss this opportunity with the IB Coordinator at their zoned school.

The IB Career-related Programme (IB CP)

The IB Career-related Programme (CP) is designed for students interested in pursuing a career-related education in the 11 and 12th grades. It provides students with an excellent foundation to support their further studies, as well as ensure their preparedness for success in the workforce. The CP framework is composed of two or more IB Diploma Programme Courses and three CP Core components: Personal and Professional skills; service learning; and the reflective project.

Other Advanced Courses

Courses which are as challenging and rigorous as AP courses, but are not sanctioned by the College Board, including many Project Lead the Way (PLTW) courses, receive the same weighted grading as AP courses. These courses are designated as "Advanced" below the course description.

Programs of Choice

The AACPS Programs of Choice initiative offers a range of specialized fields of study to increase excellence and opportunity for all secondary students. AACPS supports choice for high school students through our Centers of Applied Technology, our Signature programs, four Magnet programs, a Public Charter school, and a Virtual Academy. Through the development of strategic partnerships, schools offer students enriching educational opportunities that appeal to their interests and prepare them for college and career. AACPS students have the unique opportunity to pursue their passion for the arts, sciences, humanities, or trades while building relationships with teachers and leaders in the community.

Centers of Applied Technology (CAT)

Our two Centers of Applied Technology—CAT North and CAT South—provide students with the technical and academic foundation needed for high-wage, high-skill, in-demand careers. Programs at both centers offer industry-recognized certifications and, in many cases, the opportunity to earn college credit. Students apply theoretical knowledge to build technical proficiency in the classroom and develop employability skills through hands-on, real-world experiences. For additional information about certifications and college credit available at the Centers of Applied Technology, please refer to "Market Value Assets" on page 17 or visit the school's website.

www.catnorth.org—410-969-3100
www.catsouth.org—410-956-5900

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 and workforce needs. Every high school offers uniquely themed Signature Program courses for which students can register during the course selection window. Job shadow opportunities, internships, and college courses are also available within each Signature. If interested, visit our website www.aacps/org/page/signature-programs.

Magnet Programs

Our four 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. 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 Magnet Office at 410-222-5391 x1.

Apex Arts

The Apex Arts program is offered at Annapolis and Broadneck High Schools. Apex Arts' mission is to provide students with rigorous, immersive, and collaborative artistic experiences that are rooted in the creative process, while preparing them for an array of future opportunities. Through an arts-intensive curriculum, Apex Arts students have the opportunity to foster their artistic passions for audiences and behind the scenes by engaging in their chosen artistic area of focus at school, Studio 39, in premiere arts venues, and numerous exhibition opportunities.

International Baccalaureate Middle Years, Career-related and Diploma Programme (IB MYP/CP/DP)

The International Baccalaureate Middle Years, Career-related 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, CP or DP in grades 11 and 12.

Science, Technology, Engineering, & Mathematics (STEM)

The Science, Technology, Engineering, and Mathematics program is offered at North County and South River High Schools for students interested in rigorous, relevant and hands-on learning focused on the STEM fields of science, technology, engineering, math and computer science. Through partnerships with local colleges, universities, STEM industries, and government agencies, students will develop strong research and analytical skills, explore STEM careers, and gain real-world experience through internship and job shadow opportunities.

BioMedical Allied Health (BMAH)

The BioMedical Allied Health program is offered at Glen Burnie High School for students interested in exploring and entering the professional healthcare career fields. Through partnerships with major hospitals and medical organizations in the Baltimore-Washington Corridor and through relationships 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. The BMAH program offers students interested in healthcare career preparation rigorous and relevant problem-based learning experiences within and outside the classroom walls.

Charter Programs

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 410-222-5193 or visit www.aacps.org/charterschools.

Chesapeake Science Point Public Charter School (CSP)

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. CPS serves grades K–12. (www.mycspes.org and www.mycsp.org)

The Virtual Academy

The AACPS Virtual Academy (opened in the 2021–22 school year with State approval) continues to offer a virtual-only learning solution for a limited number of students in grades 3–12 who meet the established criteria and have demonstrated virtual learning success. An application process will occur each spring for open grade level seats. Should more students qualify than there are available seats, a random, unweighted lottery process will select students. Acceptance to the Virtual Academy requires a full one-year enrollment commitment.

As a solely virtual learning school, it is understood all students will engage in teaching and learning (including curricular assessments) and co-curricular activities virtually. However, as required by MSDE, all State assessments will be implemented on site at a designated AACPS facility.

For more information please see the Virtual Academy website at www.aacps.org/VirtualAcademy.

Scheduling

It is the responsibility of the student to evaluate carefully and select courses with 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 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.
- In Anne Arundel County, all students are strongly encouraged to pursue professional career internship opportunities or college courses through our partnership with AACC as a capstone experience. It is not the practice of AACPS for students other than seniors to receive partial schedules. There are a number of reasons for this, including a need to ensure that students have the ability/opportunity to earn sufficient credits and take the required courses in order to graduate. However, the primary reason that partial schedules are not generally approved for underclassmen is that such a schedule would result in students being unlawfully absent from school, as defined by COMAR 13A.08.01.03.
- Students are expected to maintain a full course schedule each academic year, except during their senior year. Seniors who are on track to meet all graduation requirements may request a reduced schedule during the scheduling process. Seniors must remain enrolled in 2.0 credits or more per semester. **Note: If a student's status changes and they are no longer on track to meet graduation requirements, the school will work with the family to restore full-time enrollment.**

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 summer school program offers students a number of secondary 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.

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 and twelfth grade students to take a class or classes for remedial credit. Coursework is taken after school at the comprehensive high school. Twilight School is offered first and second semester.

Maryland Virtual Learning Opportunities (MVLO)

Online Campus

With prior consent of the principal, high school students may enroll in online MVLO courses for high school credit. These online offerings expand the range of learning opportunities offered to students by way of the virtual classroom. Courses are conducted online with the teacher physically separated from the students. Students may be scheduled before, during, or after 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 Recovery Remediation (CRR) & Digital Learning Center (DLC)

Credit Recovery Remediation and Digital Learning Centers are forms of credit recovery that require students to take pre-assessments to determine levels of content mastery prior to completing sessions/modules. Students in CRR meet with teachers for a prescribed number of in-person sessions based on pre-assessment scores that provide students with the experiences necessary to demonstrate acceptable mastery of curriculum standards. Students in DLC navigate the online, scripted APEX platform to complete assigned courses. Upon the completion of the prescribed, in-person sessions or online course work, students are required to complete a post-assessment to determine content mastery and ability to earn credit in the course. Students earn an S (Satisfactory) or U (Unsatisfactory) which is recorded on transcripts. Previous failing grades do not get replaced in the transcript and there is no impact to GPAs.

Credit by Examination

Credit toward high school graduation may be earned for English 12 by passing an examination that assesses student demonstration of locally established curricular objectives. Credit by examination must be approved by the English Curriculum Coordinator on a case-by-case basis. According to COMAR 13A.03.02.04, students who have completed all requirements for the Maryland High School Diploma except for credit in English 12 may earn credit by exam. To earn credit for English 12, the student must:

- declare their intention to test out by the fall of Grade 11.
- take the Advanced Placement Language and Composition Exam and earn a minimum score of three (Students are NOT required to complete the corresponding Advanced Placement course in order to take the exam).
- take the SAT Evidence-Based Reading and Writing Test and earn a minimum score of 650.

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. Guidelines and procedures have been established by the Anne Arundel County Public Schools Curriculum, Instruction, and Assessment Offices to ensure Independent Study courses comply with system policies. 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. An AACPS Independent Study application must be completed at the home school and approved by the Director of Curriculum and Assessment of the specific course at least two weeks prior to the first day of the requested semester.

Early College Access Program (ECAP)

The Early College Access Programs (ECAP), which includes Dual Credit and Non-Dual Credit courses, offers approved high school students the opportunity to enroll in college coursework in a variety of academic areas at a discounted or at no cost. Students can take any AACC course for which they meet eligibility requirements, some of which are even approved by AACPS for Dual Credit (see below). Additionally, each high school offers college courses on campus through the school's Signature Program. College Courses can complete the academic day for high school students who are progressing toward high school graduation, provide for students in subject areas that interest them, allow them to explore potential career pathways, or get a jump start on general education courses that may be transferable.

Dual Credit Courses

For designated AACC courses, 11th, and 12 grade students may earn both college and high school credit. Prior approval from the student's parent/guardian and principal o, after advisement with the school counselor, is required. A list of eligible courses can be found at www.aacps.org/ECAP.

Students who receive an Anne Arundel Community College (AACC) course grade of 'A', 'B', 'C' or 'D' on their college transcript will be awarded the corresponding letter grade on the high school transcript. An AACC course grade of 'F', 'FX' or 'I' will be converted to an Anne Arundel County Public Schools (AACPS) grade of 'E' on their high school transcript.

High school transcripts will reflect high school credit for passing grades and no credit will be granted for 'F', 'FX', 'I', or 'W' grades. Grades for these courses will be factored into the student's high school GPA. Students who fail to complete an AACC course successfully will not have earned credit towards high school graduation requirements through dual credit.

Grades earned in AACC college courses for dual credit will be calculated into the high school transcript as a weighted grade on a 5.0 scale. The additional quality point will be awarded, equivalent to the weighting of Advanced Placement (AP), Post AP, and International Baccalaureate (IB) course grades.

ECAP Eligibility Requirements

High school 11th and 12th graders who are approved by their secondary school to participate in ECAP must demonstrate College & Career readiness by the metrics outlined by the state department of education and can be found at www.aacps.org/ecap. Additionally, 8th–10th graders identified as Gifted and Talented may be eligible for dual enrollment at the college. Please see www.aacps.org/page/ecap-gifted-talented for more information.

Listed below are the steps for students to complete the Early College Access Program (ECAP) Process:

- Complete the Anne Arundel Community College (AACC) Application
- Select an AACC course
- If eligible, complete the digital ECAP Funding Request, which requires email approval from the student's parent/guardian, counselor, and principal. If students are not eligible for funding, they can utilize the 25% tuition discount offered by AACC
- Register for AACC classes online

AACC Disability Support Services (DSS)

Students with an IEP and/or 504 Plan may qualify for student support at AACC.

If a student wishes to disclose a disability, they must contact AACC's Disability Support Services (DSS) to arrange accommodations. Please note that accommodations at AACC may differ from those provided by AACPS. For more information, visit www.aacc.edu/resources/disability-support-services or call 410-777-1411.

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

Maryland High School diploma requirements (COMAR 13A.03.02.03) state that students must satisfactorily complete four years of approved study beyond the eighth grade unless an alternative program has been approved by the local Superintendent of schools. In Anne Arundel County Public Schools, the school's Regional Assistant Superintendent, acting as the Superintendent's designee, is authorized to review and approve requests for early graduation. Students will retain status as a junior until verification of completion of all course work is complete using the final report card.

If a student intends to graduate at the end of grade 11, a plan to complete all graduation requirements including credits, state assessments, and student service hours should be discussed with the school counselor and submitted to the principal by July 30th of the summer preceding 11th grade. A school-based committee appointed by the principal will review the request and make a recommendation as to whether the exception to the four-year attendance requirement is in the best interest of the student. The school counselor will keep the packet and contact the parents once a decision has been made.

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 post-secondary 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, which is the Regional Assistant Superintendent, 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 postsecondary 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.

For more information visit www.ged.com.

Maryland Adult External High School Diploma-AACC

A Maryland High School Diploma may be awarded for demonstrating competencies in general life skills and individual skills on applied performance tests.

Program is offered at Anne Arundel Community College. For more information contact the Adult Basic Skills Office at (410) 777-1823.

NCAA Eligibility

National Collegiate Athletic Association		
NCAA Division I	— 16 Core-Course Rule — Required years of . . .	NCAA Division II
4	English	3
3	Mathematics (Algebra 1 or higher)	2
2	Natural/Physical Science (one year of lab if offered by high school)	2
1	Additional English, Mathematics or Natural/Physical Science	3
2	Social Science	2
4	Additional courses (from any area above, foreign language or comparative religion/philosophy)	4

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, visit https://web3.ncaa.org/ecwr3/

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 (ten before senior year) in the subjects in the table above. Seven of the 10 courses must include a combination of English, mathematics, or natural/physical science that meet the division 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 factors determine whether 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 be eligible to compete, a student must earn a minimum GPA of 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 ELD courses?

English Language Development (ELD) courses are not acceptable as NCAA Courses. However, advanced ELD courses may be used, but must be reviewed on a case-by-case basis. Any student who wishes to have advanced ELD courses considered must contact the college or university they will attend in order to determine initial eligibility and to begin the approval process.

AACC/ECAP Impact on Athletic Eligibility

Students participating in college courses during high school may be subject to limitations on athletic eligibility at the college level. Please check with the NCAA for additional information.

State and National Assessments

Maryland Comprehensive Assessment Program

	English Language Arts/Literacy	Mathematics	Science	Social Studies
General Education	ELA/Literacy 10	• Algebra I • Geometry • Algebra II	Life Sciences Maryland Integrated Science Assessment (LS-MISA)	Government
Alternate Assessment	Alt ELA/Literacy 11	Alt Mathematics 11	Alt MISA 11	
English Learners	ACCESS for ELLs 9–11			
Alternate Assessment	Alt ACCESS for ELLs 9–12			

While attending Anne Arundel County Public Schools, your child will participate in state-mandated assessments, assessments required for high school graduation, and assessments related to advanced course work and college admissions.

Your child's academic performance is based on more than assessment scores; however, assessment results are vital to monitor student progress as well as evaluate and improve instruction and curricula to ensure student success.

The Maryland Comprehensive Assessment Program

The *Maryland Comprehensive Assessment Program (MCAP)* covers state and federally-mandated assessments in English Language Arts/Literacy (ELA), Mathematics, Science, Social Studies, and English Language Proficiency. MCAP also includes Alternate Assessments for selected students.

A brief description follows for each state-mandated and national assessment. Schools will notify parents with specific testing information as each date approaches. Specific questions about any of the assessments can be directed to the School Testing Coordinator at your child's school.

English Language Arts/Literacy

The ELA assessments are end-of-course exams given to students in grades 3–8 and 10. For the ELA assessments students will read and analyze literary and informational passages from published texts. Students will demonstrate their mastery of ELA standards through constructed explicatory responses to Technologically constructed explicatory responses to Technologically enhanced items.

Mathematics

The mathematics assessments are given in grades 3–8, and once in high school. Middle school students taking high school credit bearing mathematics courses (Algebra 1) will take the test aligned with that particular course. Students in grade 9 who are enrolled in the Algebra I course will take that assessment. Some students in grade 9 who are enrolled in the Geometry or Algebra II course may take that assessment. The mathematics assessment requires students to solve multi-step problems that require reasoning and address real-world situations. Students will demonstrate their ability to reason mathematically, make sense of quantities and their relationships in order to solve and show their understanding through real-world problems..

Life Science Maryland Integrated Science End of Course Assessment *(LS MISA)*

The LS MISA is aligned with the Next Generation Science Standards and will require students in grades 9 or 10 to demonstrate their ability to ask questions and define problems, plan and carry out investigations, construct explanations, and design solutions, and obtain, evaluate, and communicate information. The LS MISA is designed to assess standards in Life Science. The LS MISA will be given as an end of course assessment when students take Biology.

Social Studies

The Government Assessment is an end-of-course exam that provides students with the opportunity to demonstrate mastery of the Constitutional framework and democratic process that structures the State and National political system. Students will take the Government Assessment as an end of course assessment when they take the Government course.

ACCESS for ELLs

ACCESS for ELLs is the annual English language proficiency assessment for English learners in grades K–12. The assessment measures a student's English proficiency levels in four domains: Speaking, Reading, Writing, and Listening. Results are reported to parents annually.

Alternate ACCESS for ELLs

The Alternate ACCESS for ELLs is designed for English learners with significant cognitive disabilities who cannot meaningfully participate in the standard ACCESS for ELLs assessment, even with accommodations. In order to participate in

the alternate assessment, the EL student must meet certain eligibility criteria. The Alternate ACCESS for ELLs is available for the 1–2, 3–5, 6–8, and students in grades 9–12..

DLM Mathematics, English Language Arts, and Science Alternate Assessment

Students with significant cognitive disabilities who meet eligibility criteria, as determined annually by the student's IEP team, will take the DLM Assessments in grade 11. These assessments allow students to demonstrate their reading, math, and science abilities in a format best designed for students with special needs and skills.

College Admissions and Preparation Tests

Note: There may be fees associated with these assessments

The PSAT, SAT, and NMSQT (National Merit Scholarship Qualifying Test)
High school students may opt to take a number of tests offered by the College Board. The PSAT/NMSQT (National Merit Scholarship Qualifying Test) are co-sponsored by the College Board and the National Merit Scholarships Corporation. The PSAT measures critical reading, mathematics, and writing. Only students in the 11th grade may qualify for the National Merit Scholarship.

The SAT is used by many colleges and universities as part of their admissions process. The SAT measures a student's ability to read, analyze, evaluate, and comprehend challenging texts, revise and edit grammar and punctuation, use and cite textual evidence as they read and write, demonstrate skill in analyzing data, and to solve real world mathematical problems. There is a fee associated with this test.

The SAT Subject Tests indicate a student's readiness to take college-level courses in specific subject areas. There are 20 SAT Subject Tests in the areas of English, history, science, mathematics, and language. Some colleges use subject tests to place students into appropriate courses and as an additional data point when determining college admissions.

Advanced Placement (AP) and International Baccalaureate Diploma Programme (IB DP) Exams

Students enrolled in AP and IB DP courses sit for the corresponding exams in May. Colleges and universities use the Advanced Placement Exam and International Baccalaureate Exam 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 AP Exam in specific subjects such as English, world languages, chemistry, history, calculus, psychology, biology, physics, economics, computer science, environmental sciences, statistics, and fine arts. With the exception of AP Studio Art, which is a portfolio assessment, each AP exam contains a free response section, 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. A fee is associated with these exams. Pending funding approval, financial assistance may be offered based on student need.

More information on the IB Diploma Programme and the IB Diploma Exams can be found in the Programs of Choice sections of this Program of Study or by contacting your school based IB Diploma Programme Coordinator. Check with the school testing coordinator at your child's school for information on the exams and associated fees.

ACT

The ACT is a highly respected, widely accepted measure of college readiness. The ACT assesses the degree to which students are prepared for college-level work. It has four main sections—English, Reading, Math, and Science—as well as an optional writing component. All four-year universities in the United States accept the ACT, as do more than 225 universities around the world. Anne Arundel Community College also accepts the ACT, making it a valuable measure for students who want to attend almost any school. There is a fee associated with this exam.

Technical Skill Assessments

Articulated Credit

Students may earn college credit for work completed in high school, based upon an agreement between AACPS and several post-secondary institutions. Students must enroll in that institution and complete specific requirements to receive credit.

Industry -Recognized Credentials

A formal validation of an individual's skills and/or competencies that align with state or regional in-demand occupations and are recognized by industry and employers. An IRC may be a certification, license, or credential obtained through an assessment process, is portable, and may be stackable. The IRC leads to documented positive employment outcomes, ensures relevance in the labor market, and supports career advancement and economic development for credential holders.

Proficiency Credit

Students can take an assessment provided by Anne Arundel Community College after completing a designated high school course. Students may earn this transcripted (graded) college credit while still in high school.

Programs and Course Descriptions

How to read a course description:

Course ID# | **Title of Course** — Credits

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.

Prerequisite(s): *Requirements needed before a student can take this class.*

| CTE/NCAA/Advanced/DUAL (AACC Course XXX### | # credits)

Class Length and Possible Credits

0.5sem—A *one semester* course.
A student can earn a maximum of 0.5 credit.

[FY] **0.5/sem**—A *full year* course.
A student takes this course for two semesters and can earn 0.5 credit per semester for a total of 1.0 credit.

0.5/sem—A *multiple semester* course.
A student can earn 0.5 credit for *each* semester the course is taken. Examples:
Guitar 1: up to two semesters (for 1.0 total credit)
Guitar 2–4: up to six semesters (for 3.0 total credits)
Yearbook 1–4: up to eight semesters (for 4.0 total credits)

This course meets the requirements of specific programs:

CTE —***Career and Technical Education Program***

NCAA —***National Collegiate Athletic Association***
(see "NCAA Eligibility" on page 11)

Advanced—courses which receive weighted grading

DUAL —***Anne Arundel Community College Dual Credit Courses***
A student can take an equivalent AACC course and earn both college and high school credit (see "Early College Access Program (ECAP)" on page 9)

AACPS Career Institutes

To support students' pursuit of their career goals, AACPS has developed a series of Career Institutes that allow students to discover and develop their career readiness. We understand that on a path to a post high school career, students will have the choice to go straight into the workforce, enter the military, or pursue further post-secondary education. This is why our programs develop students' career skills with college credit and/or industry-recognized certifications related to their chosen career field. Students will graduate from high school prepared to take a confident and informed next step on their career journey.

Earning College Credit and Industry Certifications

Many of these programs offer opportunities to earn industry-recognized certifications, equipping students with market value assets that support immediate entry into the workforce and/or post-secondary education. For information, see: "Market Value Assets" on page 17.

Anne Arundel Community College Program Pathways

AACPS partners with Anne Arundel Community College (AACC) to support the successful transition of students from high school to college and careers. Through this partnership, students enrolled in select CTE programs have the opportunity to earn college credit while still in high school.

To find out how each high school pathway aligns with a related college degree or certificate program, follow the link for "Career Connected Pathway" for each Institute and look for the "Credit for Previous Learning" section on the AACC website.

Career Institute Program Locations

Cluster	Institute	Network 1				Network 2					Network 3					Specialty Schools					
		Chesapeake	Glen Burnie	North County	Old Mill	Arundel	Meade	Northeast	Severn Run	Severna Park	Annapolis	Broadneck	Crofton	South River	Southern	CAT South	CAT North	Virtual Academy	Phoenix	Mary Moss	Evening High
Advanced Engineering	Engineering	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
Agriculture	CASE Natural Resources																●				
	CASE Plant & Animal Science														●				●		
	Natural Resources & Conservation											●									
Arts, Entertainment, & Design	Animation & Game Development															●					
	Graphic Communications									●							●				
	Video & Audio Production	●		●	●	●			●		●									●	
Construction	Architecture Design & Drafting																●				
	Carpentry															●	●				
	Electrical															●	●				
	Facilities Management																●		●		
	HVACR															●	●				
	Masonry																●				
	Plumbing															●	●				
	Welding															●	●				
Digital Technology	Computer Programming	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Cybersecurity						●														
	Networking												●			●	●				
Education	Early Childhood Education	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
	Teacher Academy of MD															●	●				
Financial Services	Financial Services and Accounting					●							●								
Healthcare & Human Services	Barbering																●		●		
	Biomedical Sciences		●					●													
	Certified Clinical Medical Assistant															●	●				
	Certified Nursing Assistant															●	●				
	Cosmetology															●	●				
	Dental Assistant															●					
	Pharmacy Technician															●	●				
	Physical Rehabilitation					●		●													
Hospitality, Events, & Tourism	Baking & Pastry Arts																●				
	Culinary Arts	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●		●		
Management & Entrepreneurship	Management & Entrepreneurship		●	●	●	●	●			●	●	●	●		●						
Marketing & Sales	Marketing Services	●	●	●	●	●		●	●	●	●	●			●				●	●	
Public Service & Safety	JROTC Armed Forces						●	●			●										
	Law Enforcement & Criminal Justice		●																		
Supply Chain & Transportation	Automotive Collision Repair & Refinishing																●				
	Automotive Technology															●	●				
	Marine Maintenance & Repair															●					
	Medium Heavy Truck & Equipment																●				

Market Value Assets

Market value assets provide students with the opportunity to earn college credit and/or industry-recognized certifications, giving them a competitive edge as they enter the workforce, the military, or pursue post-secondary education.

Career Institute	Market Value Asset
Animation & Game Development	Adobe Certified Professional Certifications AACC Proficiency Assessment (3 credits)
Architectural Design and Drafting	Adobe Certified User Certifications AACC Proficiency Assessment (6 credits)
Automotive Collision Repair & Refinishing	Automotive Service Excellence (ASE) Entry-Level Certifications CCBC Articulated Credit available Safety and Pollution Prevention Certification (S/P2)
Automotive Technology	Automotive Service Excellence (ASE) Entry-Level Certifications CCBC Articulated Credit available Environmental Protection Agency Refrigerant Recovery & Recycling Certification (CFC) Safety and Pollution Prevention Certification (S/P2)
Baking & Pastry Arts	AACC Proficiency Assessment (up to 7 credits) National Restaurant Association ServSafe Food Manager Certification
Barbering	Maryland Board of Barbers, Barbering License
Biomedical Science	Articulated Credit may be available from affiliated colleges, universities, or organizations.* Biotechnology Aptitude & Competency Exam (BACE)
Carpentry	AACC Proficiency Assessment (3 credits) CCBC Articulated credit available NCCER Certification (Core and Level 1 Carpentry) Occupational Safety and Health Administration (OSHA) Certification
CASE Natural Resources	AP Exam: Environmental Science Articulated Credit may be available from affiliated colleges, universities, or organizations.
CASE Plant & Animal Science	Articulated Credit may be available from affiliated colleges, universities, or organizations.
Certified Clinical Medical Assistant	AACC Proficiency Assessment (3 credits) Available if enrolled in MDA 113 Medical Terminology American Heart Association CPR/AED & First Aid Certification CCBC Articulated credit available NHA Certified Clinical Medical Assistant (CCMA)
Certified Nursing Assistant	AACC Proficiency Assessment (3 credits) Available if enrolled in MDA 113 Medical Terminology American Heart Association CPR/AED & First Aid Certification CCBC Articulated credit available Maryland Board of Nursing Certified Nursing Assistant (CNA-I)
Computer Programming	AP Exam: Computer Science Principles, Computer Science A Certiport IT Specialist Certifications
Cosmetology	Maryland Board of Cosmetologists, Cosmetologist License
Culinary Arts	AACC Proficiency Assessment (up to 7 credits) National Restaurant Association ServSafe Food Manager Certification
Cybersecurity	AACC college credits upon successful completion of courses AP Exam: Cybersecurity Certiport CCST Cybersecurity CompTIA Certifications
Dental Assistant	American Heart Association CPR/AED & First Aid Certification National Board, Expanded Function Certification Radiology, Health, and Safety Certification National Board, Radiology, Health, and Safety Certification
Early Childhood Education	AACC Proficiency Assessment (up to 7 credits) Child Development Associate (CDA) (complete all three courses and 450 hours of Career Connected Learning) Paraprofessional Certification (ParaPro)
Electrical	CCBC Articulated credit available NCCER Certification (Core and Level 1 Electricity) Occupational Safety and Health Administration (OSHA) Certification

Career Institute	Market Value Asset
Engineering	Articulated Credit may be available from affiliated colleges, universities, or organizations. Autodesk Certified User Certifications
Facilities Management	NCCER Certification Core Occupational Safety and Health Administration (OSHA) Certification
Financial Services & Accounting	AP Exam: Business with Personal Finance Microsoft Office Certifications QuickBooks Certification
Graphic Communications	Adobe Certified Professional Certifications
HVACR	CCBC Articulated credit available Environmental Protection Agency Refrigerant Recovery & Recycling Certification (CFC) NCCER Certification (Core and Level 1 HVAC) Occupational Safety and Health Administration (OSHA) Certification
JROTC Armed Forces	NOCTI Leadership & Employability Skills Credential
Law Enforcement & Criminal Justice	AACC college credits upon successful completion of courses
Management & Entrepreneurship	AACC Proficiency Exam (3 credits) (Annapolis/Arundel/Severna Park) AP Exam: Business with Personal Finance Certiport Entrepreneurship and Small Business Certification
Marine Maintenance & Repair	ABYC Marine Service Technician Certification Occupational Safety and Health Administration (OSHA) Certification
Marketing Services	Adobe Certified Professional Certifications AP Exam: Business with Personal Finance
Masonry	NCCER Certification (Core and Level 1 Masonry) Occupational Safety and Health Administration (OSHA) Certification
Medium/Heavy Truck & Equipment	Automotive Service Excellence (ASE) Entry-Level Certification Environmental Protection Agency Refrigerant Recovery & Recycling Certification (CFC) Occupational Safety and Health Administration (OSHA) Certification Safety and Pollution Prevention Certification (S/P2)
Natural Resources & Conservation	AACC college credits upon successful completion of courses Federal Aviation Administration (FAA), Part 107 Certified Drone Pilot
Networking	AACC Proficiency Assessment (up to 12 credits) Cisco Certified Networking Associate (CCNA) Cisco Certified Support Technician (CCST)
Pharmacy Technician	AACC Proficiency Assessment (3 credits) Available if enrolled in MDA 113 Medical Terminology American Heart Association CPR/AED & First Aid Certification CCBC Articulated credit available Certified Pharmacy Technicians (CPhT)
Physical Rehabilitation	AACC college credits upon successful completion of courses American Heart Association First Aid, CPR, and AED Certifications Certified Personal Trainer by the National Strength Professionals Association (NSPA)
Plumbing	CCBC Articulated credit available NCCER Certification (Core & Level 1 Plumbing) Occupational Safety and Health Administration (OSHA) Certification
Teacher Academy of Maryland	AACC Proficiency Assessment (3 credits) Paraprofessional Certification (ParaPro) Praxis Core
Video & Audio Production	Adobe Certified Professional Certifications AACC Proficiency Assessment (3 credits)
Welding	American Welding Society (AWS) Entry-Level Certifications NCCER Certification (Core and Level 1 Welding) Occupational Safety and Health Administration (OSHA) Certification

Earning College Credit

AACPS students can earn Proficiency and/or Articulated credit through program connections with Anne Arundel Community College (AACC) and the Community College of Baltimore County (CCBC). For more information visit www.aacps.org/cte.

AACC

Proficiency Credits

Awarded for CTE coursework when a student demonstrates mastery of the corresponding college course content through an exam, portfolio review, or other institution-approved assessment.

For more information:
www.aacc.edu/earn-college-credits-while-in-high-school/proficiency-credit

AACPS Career Institute	Matching AACC Course(s)		Credits
Animation and Game Development	ART 155	2-D Game Prototyping	3
Architecture Design and Drafting	ACH 111	Graphic Communication 1: Composition and Delineation	3
	ENT 241	Computer-Aided Drafting	3
Baking and Pastry Arts	HRM 119	Certification in Sanitation	1
	HRM 111	Introduction to Hospitality Industry	3
	HRM 124	Introduction to Baking and Pastry 3	3
Management and Entrepreneurship (as part of Signature Programs at Annapolis, Arundel, and Severna Park High Schools)	ESI 103	Introduction to Entrepreneurship	3
Carpentry	ACH 121	Construction Technology	3
Certified Medical Assistant Certified Nursing Assistant Pharmacy Technician	MDA 113	Medical Terminology (Requires enrollment in course)	3
Culinary	HRM 119	Certification in Sanitation	3
	HRM 111	Introduction to Hospitality Industry	3
	HRM 121	Introduction to Cooking	3
Early Childhood Education	EDU 132	Early Childhood Development	3
	EDU 135	Child's Health/Nutrition and Safety for Educators	3
	EDU 230	Educator Portfolio Development – Requires 450 hours of Career Connected Learning	1
Networking	CTS 110	Networking Essentials	4
	CTS 130	Networking 1	4
	CTS 131	Networking 2	4
Teacher Academy of Maryland	EDU 133	Growth and Development	3

CCBC

Community College of Baltimore County

Articulation Credits

Earned when a student successfully completes the identified high school course.

For more information:
www.ccbcmd.edu/_media/PDFs/Programs-and-Courses/CTE-pathways/Baltimore-County-Articulation-Book.pdf

AACPS Career Institute	Matching CCBC Course(s)		Credits
Automotive Maintenance	AUTO 100	Introduction to Automotive Technology	3
Carpentry	CONT 101	Construction Blueprint Reading	3
	ENT 241	Practices of Residential Construction	3
Certified Medical Assistant Certified Nursing Assistant Pharmacy Technician	BIOL 107	First Aid, Safety, and CPR	3
	HRM 111	Human Biology	4
	BIOL 160	Body Structure and Function	3
	ALHL 104	Introduction to Health Careers	2
Electrical	CONT 101	Construction Blueprint Reading	3
	CONT 116	Practices of Residential Construction	3
HVACR	AIRC 110	HVAC Safety, Tools, and Methods	3
	AIRC 115	Fundamentals of Refrigeration	3
	AIRC 205	Heating Systems	3
	AIRC 104	Basics of HVAC Electricity	4
Plumbing	CONT 101	Construction Blueprint Reading	3
	CONT 116	Practices of Residential Construction	3
	AIRC 110	HVAC Safety, Tools, and Methods	3

General Course Sequence for Career Institutes

Students complete either three or four courses depending on their chosen pathway. The first courses in the sequence will be designated core program courses. The final course will be a culminating core program course or, when offered, either a dual enrollment course or a 250-hour Career Connected Learning experience.

Course 1	Course 2	Course 3
Core Program Course 1	**Core Program Course 2**	**Core Program Course 3** or, when offered: • **Dual Enrollment*** • **Career Connected Learning Option***

*Note: Dual Enrollment and Career Connected Learning options must align to the core program.

Course 1	Course 2	Course 3	Course 4
Core Program Course 1	**Core Program Course 2**	**Core Program Course 3**	**Core Program Course 4** or, when offered: • **Dual Enrollment*** • **Career Connected Learning Option***

Career & Technical Education (CTE) Capstone Courses

Some institutes offer students the chance to participate in a CTE Capstone course which provides students with a culminating opportunity to apply the knowledge and technical skills gained throughout their program in a real-world project. Across all levels—Standard, Honors, and Advanced—students strengthen project management, communication, and problem-solving skills while demonstrating their readiness for postsecondary education, advanced training, or entry into the workforce. Students also have the opportunity to earn the PMI Project Management Ready certification as part of their capstone experience.

V70 | **CTE Capstone Course** [FY] 0.5/sem

Students learn key principles of project planning, organization, and implementation while strengthening decision-making, communication, and problem-solving skills. Students present a comprehensive project using scenario-based activities and project management strategies

V707 | **Honors CTE Capstone Course** [FY] 0.5/sem

Students engage in higher-level project planning, analysis, and evaluation while strengthening leadership, communication, and problem-solving skills. Students present an honors-level culminating project using research-based learning, scenario-driven activities, and professional project management strategies.

V708 | **Advanced CTE Capstone Course** [FY] 0.5/sem

Students engage in complex project planning, research, and execution while strengthening leadership, critical thinking, collaboration, and professional communication skills. Students design, develop, and present a comprehensive, real-world capstone project using advanced project management strategies and scenario-based challenges.

Career Connected Learning Options

Career-Connected learning integrates academic content with real-world experiences, helping students explore career interests in depth and refine transferable skills. Students who take one of the Career Connected Learning options will complete a minimum of 250 hours and earn two credits. These options must align to the CTE Core Program. Students can choose from the following options:

V7111/2 | **CCL Apprenticeship 1A/1B** 2 Credits

V7121/2 | **CCL Apprenticeship 2A/2B** 2 Credits

A structured training program that combines paid on-the-job experience with classroom instruction, allowing participants to gain practical skills and industry-recognized credentials while earning a wage.

V7211/2 | **CCL Employer-Driven Capstone 1A/1B** 2 Credits

V7221/2 | **CCL Employer-Driven Capstone 2A/2B** 2 Credits

A culminating experience in which students apply the knowledge and skills gained throughout their program to complete a comprehensive, real-world project or research assignment.

V7311/2 | **CCL Internship 1A/1B** 2 Credits

V7311/2 | **CCL Internshi 2A/2B** 2 Credits

A supervised work experience that allows students to apply classroom learning in a real-world setting, develop professional skills, and explore potential career paths.

V7411/2 | **CCL School-Based Enterprise 1A/1B** 2 Credits

V7421/2 | **CCL School-Based Enterprise 2A/2B** 2 Credits

A student-managed business that operates within the school, providing hands-on experience in entrepreneurship, management, and daily business operations.

Advanced Manufacturing

The Advanced Manufacturing Career Cluster blends innovative technologies and practices to enhance design and production. It covers areas such as engineering, research and development, automation and artificial intelligence, equipment maintenance, safety protocols, and quality control. This Cluster aims to increase efficiency, reduce waste, ensure safety, and produce high-quality goods, driving the industry's growth and adapting to modern demands.

Engineering | *3–4 Credits*

Overview This pathway emphasizes careers and education in fields such as mechanical, electrical, civil, and industrial engineering, focusing on the design, development, and optimization of systems and processes. Students engage in hands-on projects that develop problem-solving and critical thinking skills while exploring topics like the engineering design process, materials science, manufacturing techniques, and systems analysis—preparing them to innovate and contribute to a wide range of industries.

Related Careers Architectural and Engineering Managers, Civil Engineers, Civil Engineering Technologists and Technicians, Electrical Engineers, Environmental Engineers, Mechanical Engineers and Aerospace Engineers

Industry-Recognized Certification Autodesk Certified User Certifications

College Credits Articulated Credit may be available from affiliated colleges, universities, or organizations

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-and-degree-seekers/engineering

Locations All high schools except CAT North, CAT South, Mary Moss Academy, Phoenix Academy, and Evening High

Pathway Sequence

Engineering I Options *(1 credit)*

M25 | **Principles of Engineering***
M26 | **Intro to Engineering Design***

* Students may not use the same course to satisfy both the technology credit and a credit toward a CTE completer.

Engineering II Options *(1 credit)*

M30 | **Aerospace Engineering**
M49 | **Civil Engineering & Architecture**
M28 | **Computer Integrated Manufacturing**
M27 | **Digital Electronics**
M29 | **Environmental Sustainability**
M25 | **Principles of Engineering***

Course 3 Options *(1–2 credits)*

M30 | **Aerospace Engineering**
M49 | **Civil Engineering & Architecture**
M28 | **Computer Integrated Manufacturing**
M27 | **Digital Electronics**
M29 | **Environmental Sustainability**
M25 | **Principles of Engineering***
M44 | **PLTW Engineering Capstone**
V708 | **Advanced CTE Capstone**
xxx | **Career Connected Learning Option**

Pathway Courses

M25 | **Principles of Engineering**

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. Topics includes: Overview & Perspective of Engineering, Design Process, Communication & Documentation, Engineering Systems & Manufacturing Processes, Materials & Materials Testing, Thermodynamics, Engineering for Quality & Reliability, and Dynamics.

| Advanced

M26 | **Intro to Engineering Design**

This course develops student's problem-solving skills with emphasis on visualization and communication skills using AutoCAD Inventor 3-D solid modeling software. Topics of study include: Introduction to Design, Student Portfolio Development, Sketching & Visualization, Geometric Relationships, Modeling, Assembly Modeling, Properties of Materials, Model Documentation, Presentation, Production, and Marketing.

| Advanced

M27 | **Digital Electronics**

This course investigates topics in applied logic that encompass 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.

| Advanced

Career Cluster: *Advanced Manufacturing*

M29 | **Environmental Sustainability**

This course allows students to 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.

| Advanced

M30 | **Aerospace Engineering**

This course introduces students to the world of aeronautics, flight, and engineering. Students will apply scientific and engineering concepts to design materials and process 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.

| Advanced

M49 | **Civil Engineering & Architecture**

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.

| Advanced

M28 | **Computer Integrated Manufacturing**

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 Intro to Engineering Design. Students use CNC equipment to produce actual models for their three-dimensional designs. Available at Meade High School only

| Advanced

M44 | **PLTW Engineering Capstone**

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.

| Advanced

Agriculture

The Agriculture Career Cluster concentrates on scientific advancement of agriscience, cultivation, processing, and distribution of agricultural products, employing advanced technologies and sustainable practices to optimize global food systems. This Cluster also supports other plant- and animal-based industries including regenerative agriculture, sustainable logging, and fisheries. This Cluster has meaningful connections with the Energy and Natural Resources Cluster, highlighting a symbiotic relationship that emphasizes stewardship and resilient communities.

CASE (Curriculum for Agricultural Science Education) **Plant and Animal Science** | *4 Credits*

Overview This pathway engages students in hands-on, inquiry-based learning focused on plant and animal systems. Students explore topics such as animal anatomy and physiology, plant growth and reproduction, genetics, nutrition, and the environmental factors that affect production. Through classroom instruction and laboratory experiences, students apply science and technology to solve real-world agricultural challenges.

Related Careers Soil and Plant Scientists, Agricultural Engineers, Agricultural Technicians

College Credits Articulated Credit may be available from affiliated colleges, universities, or organizations

Locations Phoenix Academy and Southern High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2 Choose One** *(1 credit)*	**Course 3 Options** *(1 credits)*	**Course 4 Options** *(1 credit)*
M53 | Introduction to AFNR (Agriculture, Food, and Natural Resources)	M54 | Honors Principles of Agricultural Sciences/ Plants M55 | Honors Principles of Agricultural Sciences/ Animals	M56 | Honors Animal and Plant Biotechnology	M58 | Honors Agricultural Research and Development (Capstone)

Pathway Courses

M53 | Introduction to AFNR (Agriculture, Food, and Natural Resources)

This introductory course explores the range of agricultural opportunities and the personal plan of study students may pursue. CASE integrates science, mathematics, reading, and writing into the context of agriculture. Students apply the foundational skills and knowledge gained in this course throughout the CASE curriculum.

M54 | Honors Principles of Agricultural Science/ Plants

This course teaches plant science concepts through activities, projects, and problems. It covers the fundamentals of plant anatomy, physiology, classification, and production, with a focus on applying scientific knowledge to industries like agronomy, forestry, and horticulture. Key topics include soil science, hydroponics, plant and cell biology, genetic principles, and the role of plants in providing food, fiber, and fuel.

M55 | Honors Principles of Agricultural Science/ Animals

This course uses hands-on activities to teach students about animal agriculture, covering topics like animal anatomy, physiology, nutrition, health, genetics, reproduction, behavior, selection, and marketing. The curriculum aims to provide a comprehensive overview of animal science principles for students interested in careers in the field.

M56 | Honors Animal and Plant Biotechnology

In this course, students will complete hands-on activities, projects, and problems designed to build content knowledge and technical skills in the field of biotechnology. In addition, students will understand specific connections between the Animal and Plant Biotechnology lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student.

M58 | Honors Agricultural Research and Development (Capstone)

This capstone course is designed to culminate students' experiences in agriculture based on the pathway of study they pursued. Woven throughout the course are projects and problems based on practical applications and designed to develop and improve the employability of students. Students will further enhance research, critical thinking, and teamwork skills as they expand on content knowledge from previous CASE courses.

Career Cluster: *Agriculture*

CASE Natural Resources | *4 Credits*

Overview This pathway utilizes CASE curriculum to prepare students for careers and post-secondary education in agricultural sciences through inquiry-based learning, classroom instruction, FFA leadership, Supervised Agricultural Experiences (SAE), and internships. Students engage in hands-on projects exploring land use, water quality, energy, stewardship, and environmental issues. They study biomes, natural resources, and human impact on the Earth, selecting an ecosystem to apply ecological principles

Related Careers Environmental Scientist, Environmental Technician, GIS Specialist, Park Ranger

College Credits Articulated Credit may be available from affiliated colleges, universities, or organizations.

Locations CAT North

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*	**Course 4** *(1 credit)*
M53 | Introduction to AFNR (Agriculture, Food, and Natural Resources)	M59 | Honors Natural Resources and Ecology	M59 | Honors Environmental Science Issues	M58 | Honors Agricultural Research and Development (Capstone)

Pathway Courses

M53 | **Introduction to AFNR (Agriculture, Food, and Natural Resources)**

This introductory course explores the range of agricultural opportunities, and the personal plan of study students may pursue. CASE integrates science, mathematics, reading, and writing into the context of agriculture. Students apply the foundational skills and knowledge gained in this course throughout the CASE curriculum.

M59 | **Honors Natural Resources and Ecology**

Building on AFNR, students explore hands-on projects and activities while studying topics such as land use, water quality, stewardship, and environmental agencies. The study of the natural world including biomes, land, air, water, energy, use and care as well as a focus on issues surrounding man's interaction with the Earth is addressed in this course. Students select an ecosystem to study throughout the course and apply principles of natural resources and ecology from each unit of study to that ecosystem.

M59 | **Honors Environmental Science Issues**

In this course students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the environmental science field, allowing students to build content knowledge and technical skills. Students will investigate areas of environmental science including ecosystem management, sustainable agriculture, energy choices, and pollution.

M58 | **Honors Agricultural Research and Development (Capstone)**

This capstone course is designed to culminate students' experiences in agriculture, based on the pathway of study they pursued. Woven throughout the course are projects and problems based on practical applications and designed to develop and improve the employability skills of students. Students will further enhance research, critical thinking, and teamwork skills as they expand on content knowledge from previous CASE courses.

Career Cluster: *Agriculture*

Natural Resources and Conservation | *3 Credits*

Overview This pathway program focuses on the studies and activities related to the natural environment and its conservation, use, and improvement. Includes instruction in subjects such as climate, air, soil, water, land, fish and wildlife, and plant resources; in the basic principles of environmental science and natural resources management; and in the recreational and economic uses of renewable and nonrenewable natural resources

Related Careers Arborist, Land Surveyor, Landscaper, Natural Resources Officer

Industry-Recognized Certification(s) Federal Aviation Administration (FAA), Part 107 Certified Drone Pilot

College Credits (AACC) College credit for successful course completion

Locations Broadneck High School

Pathway Sequence

Course 1 *(1 credit)*

X07 | Honors Environmental Literacy Exploration 2

Course 2 *(1 credit)*

JSC002 | Restoration Ecology

and

JSC006 | Introduction to Drone Technology

Course 3 *(1 credit)*

JSC004 | General Botany

and

JGE002 | Introduction to Geographic Information Systems

Pathway Courses

X07 | **Honors Environmental Literacy Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills.

JSC002 | **Restoration Ecology**

Learn basic techniques used to repair, restore, and create ecosystems. Emphasis is placed on the diverse ecosystems of Maryland. Investigate how water quality is improved through established forest and meadow habitats, tidal and non-tidal wetlands, underwater grass meadows, and dune systems as well as through the construction of rain gardens and vegetated storm water treatment systems. This course does not satisfy a lab science requirement.

| Dual (AACC Course BIO215 | 3 credits)

JSC006 | **Introduction to Drone Technology**

Learn information technology concepts and skills that are fundamental to social, personal, business, and academic environments through the study of Drone Technology. Learn about the command and control networks, hardware, software, security, privacy, ethics, and emerging technologies as they apply to the workforce demands for small uncrewed aircraft systems (sUAS). Learn basic drone flying skills, the rules for recreational drone flying and the required knowledge to become a Federal Aviation Administration (FAA), Part 107 Certified Drone Pilot.

| Dual (AACC Course UAS111 | 3 credits)

JGE002 | **General Botany**

Gain an introduction to members of the plant kingdom and their closest relatives. Learn the unique life strategies of plants that are the basis for their importance to humans and their role in shaping global ecology. Through an examination of plant form and function, students will learn how and why plant life defines the biological potential of both terrestrial and aquatic ecosystems.

| Dual (AACC Course BIO103 | 4 credits)

JSC004 | **Introduction to Geographic Information Systems**

Utilize geospatial technology and apply foundational concepts in Geographic Information Systems (GIS) to collect, store, analyze, and display natural and social science data. Demonstrate knowledge and application of fundamental cartographic principals and analytical methods using industry standard hardware and software.

| Dual (AACC Course GEO240 | 3 credits)

Arts, Entertainment, & Design

The Arts, Entertainment, & Design Career Cluster combines creative roles in visual and performing arts, film, journalism, fashion, interior design, and creative technologies. This Cluster focuses on creating, producing, and sharing artistic and design work across multiple platforms, aiming to entertain, inform, beautify, and inspire.

Animation and Game Development | *3–4 Credits*

Overview This pathway guides students from foundational to advanced skills in 3D modeling, animation, and interactive game development. Students explore the principles of visual storytelling, character design, and digital environments while mastering industry-standard tools such as Autodesk Maya, Unity, and Adobe Creative Cloud. The program builds expertise in animation techniques, game mechanics, and programming for interactive experiences, progressing to complex 3D modeling, rigging, and immersive design. Participants create professional-quality projects and develop a robust portfolio while preparing for industry-recognized certifications. Graduates emerge equipped to thrive in careers such as game design, animation, visual effects, and interactive media, having mastered both creative storytelling and technical workflows.

Related Careers Web and Digital Interface Designers, Special Effects Artists and Animators, Commercial and Industrial Designers, Graphic Designers

Industry-Recognized Certification(s) Adobe Certified Professional Certifications

College Credits (AACC) ART 155 2D Game Prototyping

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/liberal-arts/visual-arts-and-humanities

Locations CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0871 | Honors Animation and Game Development 1	V0872 | Honors Animation and Game Development 2	V0873 | Honors Animation and Game Development 3 xxx | Career Connected Learning Option

Pathway Courses

V0871 | **Honors Animation and Game Development 1**

This introductory course immerses students in the foundations of digital storytelling, 2D animation, and entry-level game design. Learners create storyboards and short scripts, then translate drawings into animated sequences with key-framed motion, sound, and basic interactive triggers in an industry-standard game engine.

V0872 | **Honors Animation and Game Development 2**

Building on Course 1, students refine multi-layer 2D animation techniques and transition into game-ready 3D asset creation. They model, texture, optimize characters and environments, import original assets into an industry-standard game engine, script or nodeprogram player interactions, UI elements, and physics.

Prerequisite: Honors Animation and Game Development 1

V0873 | **Honors Animation and Game Development 3**

In this course students complete the full animation-to-game production pipeline. They execute high-poly-to-low-poly workflows, advanced rigging, real-time shaders, and cinematic cut-scenes, integrating voice-over, music, and UI for a polished vertical slice. Emphasis is placed on collaborative project management, peer review, performance optimization, and portfolio development.

Prerequisite: Honors Animation and Game Development 2

Career Cluster: *Arts, Entertainment, & Design*

Graphic Communications | *3–4 Credits*

Overview This pathway guides students from foundational to advanced design and production skills. Throughout these courses, students explore the principles of visual communication, including color theory, typography, and layout, while mastering industry-standard tools such as Adobe Photoshop, Illustrator, and InDesign. The program begins with essential design fundamentals and digital imaging techniques, then advances to complex illustration, photo editing, and multi-page layout design for print and digital media. Students build a comprehensive professional portfolio while preparing for industry-recognized certifications, including Adobe Certified Professional credentials. Graduates emerge equipped to thrive in careers such as graphic design, advertising, marketing, and digital publishing, having mastered both creative design strategies and technical workflows.

Related Careers Graphic Designers, Web/Digital Interface Designer, Desktop Publisher, Prepress Tech

Industry-Recognized Certification(s) Adobe Certified Professional Certifications

Locations CAT North and Severna Park High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0971 | Honors Graphic Communications 1	V0972 | Honors Graphic Communications 2	V0973 | Honors Graphic Communications 3 V707 | Honors CTE Capstone xxx | Career Connected Learning Option

Pathway Courses

V0971 | **Honors Graphic Communications 1**

This course introduces students to the foundational skills and concepts in graphic communications, covering design principles, visual composition, and the basics of industry-standard software such as Adobe Photoshop and Illustrator.

V0972 | **Honors Graphic Communications 2**

Building on Graphic Communications 1, this course deepens students' skills in digital imaging, advanced photo editing, and vector-based design using Adobe Photoshop and Illustrator.

Prerequisite: Honors Graphic Communications 1

V0973 | **Honors Graphic Communications 3**

This course advances students' skills in layout design, prepress preparation, and publication techniques, with a focus on Adobe InDesign. They will create multi-page documents, manage complex typography, and use interactive elements for both digital and print media.

Prerequisite: Honors Graphic Communications 2

Career Cluster: *Arts, Entertainment, & Design*

Video and Audio Production | *3–4 Credits*

Overview This pathway guides students from foundational to intermediate skills in media creation and production. Students explore the principles of visual composition, camera operation, lighting techniques, and audio capture while mastering industry-standard tools for video editing and sound design. The program develops expertise in digital storytelling, basic editing workflows, and multi-track audio mixing, emphasizing creativity and technical precision. Participants create professional-quality projects and build a strong portfolio while preparing for industry-recognized certifications, including Adobe Premiere Pro and Audition. Graduates emerge equipped to pursue careers in film, television, radio, and streaming media, having mastered essential creative storytelling and production workflows.

Related Careers Film and Video Editors, Audio & Video Technicians, Sound Engineering Technicians

Industry-Recognized Certification(s) Adobe Certified Professional Certifications

College Credits (AACC) ART 106 Introduction to Digital Design

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/liberal-arts/visual-arts-and-humanities

Locations Annapolis High School, Arundel High School, Chesapeake High School, Mary Moss Academy, North County High School, Old Mill High School, and Severn Run High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V1071 | Honors Video & Audio Production 1	V1072 | Honors Video & Audio Production 2	V707 | Honors CTE Capstone xxx | Career Connected Learning Option

Pathway Courses

V1071 | **Honors Video & Audio Production 1**

This introductory course introduces students to the fundamental principles of media production and broadcasting, emphasizing the basics of visual composition, audio recording, and storytelling. Students explore career pathways in film, television, radio, and online media, discovering the ethical and responsible use of emerging technologies.

V1072 | **Honors Video & Audio Production 2**

Building on Video and Audio Production 1, students delve deeper into the production process, focusing on intermediate video editing, audio post-production, and collaborative workflow management. Students gain hands-on experience with Adobe Premiere Pro and Audition to edit, color grade, and master audiovisual projects.

Prerequisite: Honors Video and Audio Production 1

Construction

The Construction Career Cluster focuses on professions involved in designing, planning, managing, and executing projects in the built environment. It emphasizes sustainable building practices to ensure that structures are both environmentally responsible and resilient. Careers in this Cluster are pivotal in creating durable infrastructure that meets present needs without compromising future generations' ability to meet their own, covering a range of roles from architects and engineers to construction managers and skilled tradespeople.

Architectural Design and Drafting | *3–4 Credits*

Overview This pathway prepares students for careers in architecture, engineering, and construction management. Students gain skills in traditional and digital drafting, sustainable design, and professional documentation. Hands-on projects using tools like 3D printers and laser cutters help build a strong portfolio. The program offers opportunities to earn Autodesk Revit and LEED Green Associate certifications.

Related Careers Architects, Architectural and Civil Drafters, Drafters

Industry-Recognized Certification(s) Autodesk Certified User Certifications

College Credits (AACC) ACH 111 Graphic Communication 1: Composition and Delineation, ENT 241 Computer-Aided Drafting

Career Connected Pathways Anne Arundel Community College
www.aacc.edu/about/schools-of-study/science-technology-and-education/architecture-and-interior-design

Locations CAT North

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2201 | Architectural Design Principles	V2202 | Architectural Design & Drafting 1	V2203 | Architectural Design & Drafting 2 xxx | Career Connected Learning Option

Pathway Courses

V2201 | **Architectural Design Principles**

This introductory course introduces students to fundamental architectural principles and basic drafting techniques. Students learn to use traditional drafting tools and begin working with computer-aided design software while studying architectural history and basic building systems. Through hands-on projects, students develop basic model-making skills and learn shop safety while beginning to explore sustainable design concepts.

V2202 | **Architectural Design & Drafting 1**

Building on Architectural Design Principles, students develop proficiency in Building Information Modeling using Autodesk Revit. Students create detailed digital building models, produce construction documentation, and learn about building codes and cost estimation. The course includes advanced model-making using digital fabrication tools and prepares students for the Autodesk Revit Certified User exam.

Prerequisite: Architectural Design Principles

V2203 | **Architectural Design & Drafting 2**

This course focuses on environmentally responsive design strategies and integrated building systems. Students learn to use energy modeling software and environmental analysis tools to optimize building performance. The course includes study of mechanical, electrical, and plumbing systems while introducing LEED certification concepts. Students conduct site analyses, perform daylight studies, and develop sustainable design solutions through detailed technical documentation.

Prerequisite: Architectural Design 1

Career Cluster: *Construction*

Carpentry | *3–4 Credits*

Overview This pathway prepares students for careers in residential, commercial, and industrial carpentry systems. Students develop foundational construction skills and specialized carpentry knowledge while earning industry-recognized certifications. The program emphasizes hands-on learning, safety protocols, and real-world applications, preparing graduates for immediate entry into the carpentry trade or advanced technical education.

Related Careers Carpenters, Construction Managers, Cabinet Maker

Industry-Recognized Certification(s) NCCER Core and Carpentry Level I, Occupational Safety and Health Administration (OSHA) Certification

College Credits (CCBC) CONT 101 Construction in Blueprint Reading, CONT 116 Practices of Residential Construction

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/science-and-technology/architecture-and-interior-design

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2301 | Core Construction Principles Carpentry	V2302 | Carpentry 1	V2303 | Carpentry 2 xxx | Career Connected Learning Option

Pathway Courses

V2301 | **Core Construction Principles Carpentry**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2302 | **Carpentry 1**

Building on Construction Fundamentals, students will explore essential carpentry concepts such as construction safety, blueprint reading, and materials handling. Training will focus on the proper use of hand and power tools, as well as basic wood-framing techniques for floors, walls, and ceilings. While adhering to OSHA safety standards. students will develop a solid understanding of residential construction systems, preparing them for more advanced carpentry tasks.

Prerequisite: Core Construction Principles Carpentry

V2303 | **Carpentry 2**

This course focuses on specialized carpentry techniques and complex construction projects. Students develop skills in stair layout, roof framing, exterior finishes, blueprint reading, material estimation, and job-site management. Hands-on work includes interior and exterior finishing, motor and conductor installation, and electric lighting installation.

Prerequisite: Carpentry 1

Career Cluster: *Construction*

Electrical | *3–4 Credits*

Overview This pathway prepares students for careers in residential, commercial, and industrial electrical systems. Students develop foundational construction skills and specialized electrical knowledge while earning industry-recognized certifications. The program emphasizes hands-on learning, safety protocols, and real-world applications, preparing graduates for immediate entry into the electrical trade or advanced technical education.

Related Careers Journeymen Electrician, Master Electrician, Electrical Project Manager

Industry-Recognized Certification(s) NCCER Core and Electrical Level I, Occupational Safety and Health Administration (OSHA) Certification

College Credits (CCBC) CONT 101 Construction in Blueprint Reading, CONT 116 Practices of Residential Construction

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2401 | Core Construction Principles Electrical	V2402 | Electrical 1	V2403 | Electrical 2 xxx | Career Connected Learning Option

Pathway Courses

V2401 | **Core Construction Principles Electrical**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2402 | **Electrical 1**

Building on Construction Fundamentals, students learn skills necessary to pursue a career as an electrician including an overview of occupations in the electrical industry, introduction to circuits, local, state and federal electrical code, and residential wiring. While adhering to OSHA safety standards, students will develop a solid understanding of residential construction systems, preparing them for more advanced electrical tasks.

Prerequisite: Core Construction Principles Electrical

V2403 | **Electrical 2**

This course focuses on advanced knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.

Prerequisite: Electrical 1

Career Cluster: *Construction*

Facilities Management | *3–4 Credits*

Overview This pathway prepares students for careers in commercial building management. Students earn OSHA 30 certification and master IFMA's core competencies, gaining skills in building systems, safety, sustainability, and business operations. Graduates are ready for entry-level roles and prepared for the Certified Facility Manager (CFM) credential.

Related Careers Facility Managers

Industry-Recognized Certification(s) NCCER Core, Occupational Safety and Health Administration (OSHA) Certification

Locations CAT North and Phoenix Academy

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V251 | Introduction to Facilities Management	V2502 | Building Systems	V2503 | Business and Risk Management xxx | Career Connected Learning Option

Pathway Courses

V2501 | **Introduction to Facilities Management**

This foundational course introduces students to the core principles of facilities management while emphasizing workplace safety. Students develop knowledge of building systems, maintenance procedures, and occupant services. The course begins OSHA 30 Construction certification preparation and establishes essential professional communication skills. Through hands-on projects and practical exercises, students learn to perform basic facility inspections, maintain building systems, and implement safety protocols.

V2502 | **Building Systems**

Building on Introduction to Facilities Management, this course covers complex building systems, sustainability, and automation. Students learn advanced maintenance, diagnostics, and preventive programs while completing OSHA 30 Construction certification. Emphasis is placed on safety, environmental responsibility, and modern facility management technology.

Prerequisite: Introduction to Facilities Management

V2503 | **Business and Risk Management**

This course bridges technical skills with management principles, focusing on budgeting, quality control, and risk assessment. Students learn to create financial reports, manage projects, and apply leadership strategies through case studies and hands-on projects. Emphasis is placed on decision-making and strategic planning in facility operations.

Prerequisite: Building Systems

Career Cluster: *Construction*

Heating, Ventilation, Air Conditioning, & Refrigeration (HVACR) | *3–4 Credits*

Overview This pathway prepares students to install, maintain, and repair HVACR systems. Students learn safety, tool use, trade math, and electrical fundamentals, progressing to hands-on skills like pipe fitting, brazing, and ductwork. Advanced topics include compressors, heat pumps, and air quality systems. Graduates are equipped to diagnose, repair, and maintain HVACR systems to industry standards.

Related Careers Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Industry-Recognized Certification(s) NCCER Core, HVACR Level I, Occupational Safety and Health Administration (OSHA) Certification, Environmental Protection Agency Refrigerant Recovery & Recycling Certification (CFC)

College Credits (CCBC) AIRC 110 HVAC Safety, Tools, and Methods, AIRC 115 Fundamentals of Refrigeration, AIRC 205 Heating Systems, AIRC 104 Basics of HVAC electricity

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2601 | Core Construction Principles HVACR	V2602 | HVACR 1	V2603 | HVACR 2 xxx | Career Connected Learning Option

Pathway Courses

V2601 | **Core Construction Principles HVACR**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2602 | **HVACR 1**

Building on Construction Fundamentals, students gain hands-on experience with piping materials, HVACR tools, and system installation. The course covers safety, measurement, cutting, joining, DWV systems, water distribution, and code compliance. Emphasis is placed on proper techniques, industry standards, and foundational HVACR principles.

Prerequisite: Core Construction Principles HVACR

V2603 | **HVACR 2**

This course builds skills in advanced piping calculations, commercial drawing interpretation, and complex HVACR system installation. Students work with drainage systems, water heaters, fuel gas, and electrical components, while learning insulation, firestopping, and structural considerations. Hands-on training includes valve installation, system testing, and troubleshooting, preparing students for commercial applications and code compliance.

Prerequisite: HVACR 1

Career Cluster: *Construction*

Masonry | *3–4 Credits*

Overview This pathway prepares students for careers in residential and commercial masonry construction. Students master essential skills from workplace safety and basic tool usage to advanced techniques such as reinforced masonry, fireplace construction, and specialized architectural features. This aligns with industry standards and provides students with the technical knowledge and practical skills needed for immediate employment as apprentice masons or continued education in construction management programs.

Related Careers Brick Masons, Block Masons, Tile and Stone Setters

Industry-Recognized Certification(s) NCCER Core, Masonry Level I, Occupational Safety and Health Administration (OSHA) Certification

Locations CAT North

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2701 | Core Construction Principles Masonry	V2702 | Masonry 1	V2703 | Masonry 2 xxx | Career Connected Learning Option

Pathway Courses

V2701 | **Core Construction Principles Masonry**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2702 | **Masonry 1**

Building on Construction Fundamentals, students develop skills in mixing mortar, laying masonry units, and using tools safely and accurately. The course emphasizes hands-on practice with brick, block, and stonework, while covering construction drawings, measurements, and quality control.

Prerequisite: Core Construction Principles Masonry

V2703 | **Masonry 2**

This course focuses on advanced residential and commercial masonry, including reinforced structures, fireplaces, chimneys, and detailed brickwork. Students develop expertise in blueprint reading, quality control, and installing wall systems, insulation, moisture control, and masonry reinforcements—while adhering to building codes and industry standards through hands-on projects.

Prerequisite: Masonry 1

Career Cluster: *Construction*

Plumbing | *3–4 Credits*

Overview This pathway prepares students for careers in residential, commercial, and industrial plumbing systems. Students develop foundational construction skills and specialized plumbing knowledge while earning industry-recognized certifications. The program emphasizes hands-on learning, safety protocols, and real-world applications, preparing graduates for immediate entry into the plumbing trade or advanced technical education.

Related Careers Plumber, Pipefitter, Steamfitter

Industry-Recognized Certification(s) NCCER Core, Plumbing Level I, Occupational Safety and Health Administration (OSHA) Certification

College Credits (CCBC) CONT 101 Construction Blueprint Reading, CONT 116 Practices of Residential Construction, AIRC 110 HVAC Safety, Tools, and Methods

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2801 | Core Construction Principles Plumbing	V2802 | Plumbing 1	V2873 | Honors Plumbing 2 xxx | Career Connected Learning Option

Pathway Courses

V2801 | **Core Construction Principles Plumbing**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2802 | **Plumbing 1**

Building on Construction Fundamentals, students learn to work with plastic, copper, cast iron, and steel piping using proper measurement, cutting, and joining techniques. The course covers plumbing safety, tools, basic math, and drawing interpretation. Hands-on practice includes DWV systems, water distribution, and fixture installation, with emphasis on code compliance and industry best practices.

Prerequisite: Core Construction Principles Plumbing

V2873 | **Honors Plumbing 2**

This course builds skills in advanced piping calculations, commercial drawing interpretation, and complex drainage system installation. The course covers water heaters, fuel gas, electrical circuits, and emphasizes insulation, structural needs, and firestopping. Hands-on practice includes valve installation, system testing, and troubleshooting, preparing students for commercial plumbing work and code compliance.

Prerequisite: Plumbing 1

Career Cluster: *Construction*

Welding | *3–4 Credits*

Overview This pathway prepares students for entry-level careers in the welding industry through progressive skill development and industry-recognized certifications. Students learn construction and safety basics and advanced welding techniques, gaining skills in multi-position welds, blueprint reading, equipment operation, inspections, and pipe-to-plate connections. Graduates are prepared to earn four industry credentials—OSHA 30, NCCER Core, Welding Level 1, and Level 2, qualifying them for careers in construction, manufacturing, and fabrication.

Related Careers Welder, Cutter, Solderer, Brazer

Industry-Recognized Certification(s) NCCER Core, Welding Level I, American Welding Society (AWS) Entry-Level Certifications, Occupational Safety and Health Administration(OSHA) Certification

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V2001 | Core Construction Principles Welding	V2902 | **Welding 1**	V2903 | **Welding 2** xxx | Career Connected Learning Option

Pathway Courses

V2901 | **Core Construction Principles Welding**

This introductory course builds essential skills for careers in various construction trades. Students learn safety, construction math, tools, drawings, rigging, and workplace readiness. The course aligns with OSHA 30 standards and offers opportunities to earn both NCCER Core and OSHA 30 Construction certifications.

V2902 | **Welding 1**

Building on Construction Fundamentals, students learn essential welding processes and safety protocols, including oxyfuel cutting, SMAW, and basic GMAW/FCAW. The course covers equipment setup, metal prep, electrode selection, and joint creation. Students practice weld inspection and quality control following AWS standards.

Prerequisite: Core Construction Principles Welding

V2903 | **Welding 2**

This course builds students' GMAW/FCAW skills in all positions, GTAW techniques, and advanced SMAW operations. The course covers metallurgy, heat treatments, and weld inspection methods. Students interpret welding symbols, create detailed plans, and produce welds to AWS standards for industrial use.

Prerequisite: Welding 1

Digital Technology

The Digital Technology Career Cluster focuses on developing digital systems for communication and data storage using critical technologies such as artificial intelligence (AI), data analytics, and cybersecurity. This Cluster builds skills necessary for all careers to navigate and lead in the constantly evolving tech landscape and drives innovation across all industries to tackle complex challenges and opportunities in communities and economies.

Computer Programming | *3–4 Credits*

Overview This pathway provides students with comprehensive software development skills through mastery of Python and Java programming languages. Students progress from fundamental coding concepts to complex development projects while earning industry certifications and building professional portfolios. Graduates emerge prepared for both college computer science programs and immediate entry into software development careers.

Related Careers Computer Programmer, Software Developer, Software Engineer, Database Administrator, Systems Analyst

Industry-Recognized Certification(s) Certiport IT Specialist Certifications

Locations All high schools except CAT North, CAT South, Mary Moss Academy, Phoenix Academy and Evening High

Pathway Sequence

Computer Programming I *(1 credit)*	**Computer Programming II** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
R04 | **AP Computer Science Principles**	R20 | **AP Computer Science A**	R22 | **Advanced Computing** R33 | **AP Cybersecurity** (beginning SY27–28) V708 | **Advanced CTE Capstone** xxx | **Dual Enrollment** xxx | **Career Connected Learning Option**

Pathway Courses

R04 | **AP Computer Science Principles**

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. This course introduces students to a wide range of computational topics in 7 categories: Algorithms, Abstraction, Data & Information, Programming, Global Impact of Digital Technology, Creativity, & The Internet. 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 yet manageable curriculum that aims to broaden participation in computer science. This course is intended to prepare students for the AP Computer Science Principles Exam. This course satisfies the Basic Technology graduation requirement if not used for Computer and Information Sciences Completer.

Recommended: Algebra 1

| Advanced

R20 | **AP Computer Science A**

This course serves as a rigorous introduction to object-oriented programming using the Java programming language. Topics covered include input/output, conditionals, loops, functions/methods, basic data structures, and advanced object-oriented programming concepts. The course is intended to prepare students for the AP Computer Science A Exam.

Prerequisite: AP Computer Science Principles

| Advanced

R22 | **Advanced Computing**

This project-focused course provides an in-depth exploration into a vast array of topics in computing, including advanced software development, game design & development, mobile app programming, web development, network security, databases and more. Students who complete this course will have a thorough understanding of a variety of subtopics in computing, enabling them to make informed decisions in their post-secondary pursuits.

Prerequisite: AP Computer Science Principles and AP Computer Science A

| Advanced

Career Cluster: *Digital Technology*

Cybersecurity | *3–4 Credits*

Overview This pathway emphasizes careers related to securing computer and information networks, including local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communication systems.

Related Careers Information Security Analyst, Cybersecurity Analyst, Security Engineer, Penetration Tester

Industry-Recognized Certification(s) CompTIA Certifications, Certiport CCST Cybersecurity

Locations Meade High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V1271 | Honors Cybersecurity 1	V1722 | Honors Cybersecurity 2	R33 | AP Cybersecurity (beginning SY27–28) V707 | Honors CTE Capstone xxx | Career Connected Learning Option

Pathway Courses

V1271 | **Honors Cybersecurity 1**

This introductory course introduces students to the foundational principles of network systems and cybersecurity, emphasizing the essential skills needed to set up, maintain, and protect digital communication networks.

V1272 | **Honors Cybersecurity 2**

Building on Cybersecurity 1, this course advances students' skills in securing and managing complex network environments. The course focuses on configuring, administering, and troubleshooting network infrastructure, with an emphasis on implementing security protocols and mitigating cybersecurity risks.

Prerequisite: Cybersecurity 1

R33 | **AP Cybersecurity**

This course introduces students to cybersecurity threats, risk management, and defense strategies across digital and physical domains, preparing them for college-level study and real-world impact.

Prerequisite: Cybersecurity 2
| Advanced

Career Cluster: *Digital Technology*

Networking | *3–4 Credits*

Overview This pathway emphasizes careers and educational pathways related to the design and implementation of computer and information networks, including local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communication systems. It covers the analysis of data processing challenges involved in developing and enhancing computer network systems.

Related Careers Network and Computer Systems Administrators

Industry-Recognized Certification(s) Cisco Certified Networking Associate (CCNA), Cisco Certified Support Technician (CCST)

College Credits (AACC) CTS 110 Networking Essentials, CTS 130 Networking 1. CTS 131 Networking 2

Career-Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-and-degreeseekers/cybersecurity-and-digital-forensics

Locations CAT North and CAT South

Pathway Sequence – CAT Centers

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V1371 | **Honors Networking 1**	V1372 | **Honors Networking 2**	V1373 | **Honors Networking 3** xxx | **Career Connected Learning Option**

Pathway Courses

V1371 | **Honors Networking 1**

This introductory course introduces students to computer networking fundamentals, including LAN/WAN, IP addressing, switching, routing, and security. Students gain hands-on experience with technologies like Ethernet, VLANs, IPv6, and cybersecurity, while exploring IT careers, building employability skills, and preparing for certifications.

V1372 | **Honors Networking 2**

Building on Networking 1, students learn intermediate-level concepts essential for managing and troubleshooting networks in business environments. This course focuses on advanced IP addressing, routing protocols, network security, and troubleshooting techniques and equips students with skills to pursue certifications like CompTIA Network+.

Prerequisite: Honors Networking 1

V1373 | **Honors Networking 3**

This course is designed to expand students' understanding of advanced network security, wireless technologies, and emerging networking trends. Building on the knowledge from Networking 1 and 2, students will learn to implement advanced security protocols, secure wireless networks, and work with cutting-edge technologies such as IoT and SDN (Software-Defined Networking).

Prerequisite: Honors Networking 2

Career Cluster: *Digital Technology*

Networking | *Crofton High School Pathway* | *3 Credits*

Overview This pathway emphasizes careers and educational pathways related to the design and implementation of computer and information networks, including local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communication systems. It covers the analysis of data processing challenges involved in developing and enhancing computer network systems.

Related Careers Network and Computer Systems Administrators

Industry-Recognized Certification(s) Cisco Certified Networking Associate (CCNA), Cisco Certified Support Technician (CCST)

College Credits (AACC) CTS 110 Networking Essentials, CTS 130 Networking 1. CTS 131 Networking 2

Career-Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-and-degreeseekers/cybersecurity-and-digital-forensics

Locations Crofton High School

Pathway Sequence – Crofton High School

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1 credit)*
JCS002 | **Networking Essentials**	JCS004 | **Networking 1**	JCS005 | **Networking 2**

Pathway Courses

JCS002 | **Networking Essentials** 1.0sem

Learn the fundamental building blocks that form a modern network including protocols, topologies, hardware, and network operating systems. Develop networking knowledge and skills related to TCP/IP, Ethernet, and wireless transmission and security. Learn to maintain and troubleshoot existing local area networks.
| Dual (AACC Course CTS110 | 4 credits)

JCS004 | **Networking 1** 1.0sem

Describe the devices and services used to support communications in data networks and the Internet. Describe the role of protocol layers in data networks. Design, calculate, and apply subnet masks and addresses in IPv4 and IPv6 networks. Explain Ethernet concepts such as media, services, and operations. Build simple Ethernet networks using routers and switches. Use Cisco command-line (CLI) commands to perform basic router and switch configurations. Utilize network utilities to verify small networks and analyze data traffic.
| Dual (AACC Course CTS130 | 4 credits)

JCS005 | **Networking 2** 1.0sem

Explore switching concepts such as VLAN and trunking technologies. Configure and troubleshoot a small switched network. Explain how vulnerabilities can be mitigated to enhance network security. Learn the purpose and operation of routing concepts. Explain the benefits and operations of DHCP. Discuss network concepts such as WLANs, LAN redundancy and link aggregation.
| Dual (AACC Course CTS131 | 4 credits)

Education

The Education Career Cluster spans careers aimed at fostering learning from early childhood to adulthood, including teaching, instructional design, counseling services, community engagement, learner support, and educator training. This Cluster emphasizes quality education standards and lifelong learning, preparing individuals for success through all life stages by nurturing knowledge, skills, and critical thinking and encouraging personal and societal growth in a constantly evolving world.

Early Childhood Education | *3–4 Credits*

Overview This pathway emphasizes careers and educational pathways dedicated to nurturing the holistic growth of children from birth to 8 years old through education, care, and early intervention. Professionals in this field specialize in fostering physical, cognitive, emotional, and social development in early learners by applying proven and promising strategies for whole-child wellness.

Related Careers Preschool Teacher, Childcare Center Director, Teacher Assistant

Industry-Recognized Certification(s) Child Development Associate (CDA), Paraprofessional Certification (ParaPro)

College Credits (AACC) EDU Early Childhood Development, EDU 135 Child's Health/Nutrition and Safety for Educators, EDU 230 Educator Portfolio Development

Locations All high schools except CAT North, CAT South, Mary Moss Academy, Phoenix Academy and Evening High

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options*** *(1–2 credits)*
V0601 | **Early Childhood Education 1**	V0672 | **Honors Early Childhood Education 2**	V0673 | **Honors Early Childhood Education 3** xxx | **Dual Enrollment** xxx | **Career Connected Learning Option**

Pathway Courses

V0601 | **Early Childhood Education 1**

This introductory course focuses on creating safe, healthy, age-appropriate environments for children from birth to age five. Students learn developmental stages, observation skills, positive guidance, and family engagement. It prepares students for the CDA credential with an emphasis on ethics and portfolio development.

V0672 | **Honors Early Childhood Education 2**

Building on Early Childhood Education 1, students focus on practical application of child development and teaching strategies. Students design age-appropriate activities, refine observation and assessment skills, and enhance family engagement. They continue developing their CDA portfolio and gain hands-on experience in classroom management, behavior guidance, and professional practices.

Prerequisite: Early Childhood Education 1

V0673 | **Honors Early Childhood Education 3**

This course advances early childhood education skills as students work toward completing CDA requirements. They refine curriculum design, observation, and documentation skills while gaining hands-on experience in supervised settings. Emphasis is placed on professionalism, communication, and inclusive practices, with continued development of a strong CDA portfolio.

Prerequisite: Honors Early Childhood Education 2

*Students interested in CDA certification **must take all three Early Childhood courses** and complete 480 hours or a Career Connected Learning option.

Career Cluster: *Education*

Teacher Academy of Maryland | *3–4 Credits*

Overview This pathway covers teaching and instructional design from K-12 to adult learning, integrating technology and innovative methods into education. This field promotes lifelong learning in various settings, including schools, colleges, corporate environments, and community organizations.

Related Careers Elementary School Teacher, Secondary School Teacher, ParaPro Teaching Assistant, Special Education Teacher

Industry-Recognized Certification(s) Paraprofessional Certification (ParaPro), Praxis Core

College Credit (AACC) EDU 111 Foundations of Education, EDU 133 Growth and Development

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0101 | Teacher Academy of Maryland 1	V0772 | Honors Teacher Academy of Maryland 2	V0773 | Honors Teacher Academy of Maryland 3 xxx | Career Connected Learning Option

Pathway Courses

V0701 | **Teacher Academy of Maryland 1**

This introductory course introduces key concepts of human development across the lifespan, emphasizing physical, cognitive, and socioemotional growth. Students explore developmental theories, the impact of family, culture, and trauma, and how these influence learning.

V0772 | **Honors Teacher Academy of Maryland 2**

Building on Teacher Academy of Maryland 1, this course focuses on instructional design, teaching strategies, and educational technology. Students explore differentiated instruction, assessment, and support for diverse learners. Through projects, they create and apply effective teaching materials, preparing for the ParaPro Assessment Certification.

Prerequisite: Teacher Academy of Maryland 1

V0773 | **Honors Teacher Academy of Maryland 3**

This course focuses on advanced teaching methods, leadership, and instructional innovation. Students design curriculum, use emerging technologies, analyze data, and explore roles like mentoring and coaching. The course prepares students for the Praxis Core Assessment and practical experience in apprenticeships or work-based learning.

Prerequisite: Honors Teacher Academy of Maryland 2

Financial Services

The Financial Services Career Cluster encompasses careers in managing and advising financial transactions, including banking, lending, corporate finance, debt management, accounting, insurance, and real estate. These careers contribute to economic stability and growth by supporting the financial health of individuals and organizations.

Financial Services and Accounting | *3–4 Credits*

Overview This pathway integrates core accounting concepts, financial literacy, and advanced data analysis with an emphasis on both personal and corporate finance perspectives. Students gain a strong foundation in ethical practices and the essential role of finance in supporting economic growth and stability. Progressive skill-building in spreadsheet software, specialized accounting platforms, and capital markets tools equip them for recognized industry certifications.

Related Careers Personal Financial Advisors, Accountant, Financial Analyst, Tax Preparer

Industry-Recognized Certification(s) Microsoft Office Certifications, QuickBooks

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-and-degreeseekers/accounting

Locations Arundel High School and Crofton High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0101 | **Financial Services & Accounting 1**	V0172 | **Honors Financial Services & Accounting 2**	Q09 | **AP Business with Personal Finance** V707 | **Honors CTE Capstone** xxx | **Career Connected Learning Option**

Pathway Courses

V0102 | **Financial Services & Accounting 1**

This introductory course lays the foundation for understanding the financial services industry and fundamental accounting practices. Students explore the roles of banking, lending, insurance, and real estate, learning how each sector contributes to economic stability.

V0172 | **Honors Financial Services & Accounting 2**

Building on Financial Services and Accounting 1, this class deepens students' accounting knowledge and focuses on advanced spreadsheet skills. Students refine their use of Excel, progressing toward expert-level functions, data analysis, and pivot tables, in preparation for the Microsoft Excel Expert 365/2019 certification.

Prerequisite: Financial Services and Accounting 1

Q09 | **AP Business with Personal Finance**

AP Business with Personal Finance is a rigorous, college-level course that introduces students to core principles of business management, entrepreneurship, and financial decision-making. Students explore topics such as economic systems, business operations, marketing, leadership, financial planning, credit, banking, investing, and consumer decision-making. Through real-world applications, case studies, and projects, students develop the knowledge and skills needed to manage personal finances responsibly and understand how businesses operate in today's global economy. This course prepares students for further study in business, finance, and economics and helps them build practical skills for life beyond high school.

Prerequisite: Honors Accounting 2
| Advanced

Healthcare & Human Services

The Healthcare & Human Services Career Cluster promotes whole health in individuals and communities through a diverse array of services. This sector includes technical, mental, and therapeutic services and personal care, supported by medical and social sciences. By addressing social determinants of health and leveraging health data and science, this Cluster aims to enhance the overall health and resilience of individuals, families, and communities.

Barbering | *6 Credits*

Overview This pathway prepares students for careers in barbering with training in haircutting, styling, shaving, and sanitation. Students build skills in advanced techniques, client consultation, business practices, and ethics. The program includes hands-on training, work-based learning, and preparation for Maryland's Barbering License exams, ensuring technical and professional readiness.

Related Careers Barber, Barbershop Owner, Sales Rep

Industry-Recognized Certification(s) Maryland State Board of Barbers, Barbering License

Locations CAT North and Phoenix Academy

Pathway Sequence

Course 1 *(2 credits)*	**Course 2** *(2 credits)*	**Course 3** *(1 credit)*	**Course 4** *(1 credit)*
V1401 | **Barbering 1**	V1402 | **Barbering 2**	V1403 | **Barbering 3**	V1404 | **Barbering 4**

Pathway Courses

V1401 | **Barbering 1**

In this introductory course, students to the foundational skills and knowledge necessary for a career in barbering. Emphasizing safety, sanitation, and professional conduct, this course provides hands-on training in basic haircutting, hairstyling, and shaving techniques.

V1402 | **Barbering 2**

Building on Barbering 1, students focus on advanced haircutting, hairstyling, and shaving techniques. They will expand their knowledge of chemical services, including hair coloring, relaxing, and permanent waving, while maintaining compliance with safety and sanitation standards.

Prerequisite: Barbering 1

V1403 | **Barbering 3**

This course focuses on advanced barbering techniques and prepares students for Maryland's Limited Barber Stylist licensing exam. Students will refine their skills in precision haircutting, advanced shaving, beard design, and chemical services, such as corrective coloring and specialty perms.

Prerequisite: Barbering 2

V1404 | **Barbering 4**

This course prepares students for the Maryland Barbering License exam. This course emphasizes mastery of advanced barbering techniques, including creative haircutting, complex chemical services, and detailed beard and facial grooming.

Prerequisite: Barbering 3

Career Cluster: *Healthcare & Human Services*

Biomedical Science | *3–4 Credits*

Overview This pathway prepares students for healthcare and biotechnology careers through scientific principles, lab techniques, and clinical skills. Emphasizing ethics, adaptability, and innovation, it equips students to pursue higher education, earn industry credentials, and help develop medical solutions that improve health and resilience.

Related Careers Biomedical Engineer, Biomedical Scientist, Clinical Laboratory Technologist/Technician, Genetic Counselor

Industry-Recognized Certification(s) Biotechnology Aptitude & Competency Exam (BACE)

College Credits Articulated Credit may be available from affiliated colleges, universities, or organizations

Locations Glen Burnie High School and Northeast High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
Biomedical Science 1	Biomedical Science 2	Biomedical Science 3
M35 | **Principles of Biomedical Science**	M36 | **Human Body Systems**	M37 | **Medical Interventions**
		M39 | **Biomedical Innovations**
		xxx | **Career Connected Learning Option**

Pathway Courses

M35 | **Principles of Biomedical Science**

This course introduces the biomedical sciences through exciting hands-on projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. 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.

| Advanced

M36 | **Human Body Systems**

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.

Prerequisite(s): Principles of Biomedical Sciences
| Advanced

M37 | **Medical Interventions**

This course allows students to explore how diseases are prevented, diagnosed, and treated by following the lives of a fictitious family. Through engaging case studies, students examine interventions ranging from basic diagnostic tests to complex treatments involving immunology, genetics, pharmacology, surgery, medical devices, and cancer care. The course emphasizes prevention, lifestyle choices, and the role of scientific thinking and engineering design, while highlighting the past, present, and future of biomedical science.

Prerequisite(s): Principles of Biomedical Science
| Advanceds

M39| **Biomedical Innovations**

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution.

Prerequisite(s): Principles of Biomedical Sciences (PBS), Human Body Systems (HBS)
| Advanced

Career Cluster: *Healthcare & Human Services*

Certified Clinical Medical Assistant | *3 Credits*

Overview This pathway equips students with clinical and administrative skills for healthcare settings. Students learn vital signs, diagnostic testing, medication administration, and patient record management. Key topics include infection control, phlebotomy, ECG, pharmacology basics, and medical office tasks like EHR and billing. The program prepares students for the National Healthcare Association's (NHA) Certified Clinical Medical Assistant exam.

Related Careers Clinical Medical Assistant, Patient Care Technician, Medical Lab Technician, Health Information Technician

Industry-Recognized Certification(s) American Heart Association CPR/AED & First Aid Certification, NHA Certified Clinical Medical Assistant (CCMA)

College Credits (AACC) CCBC HLTH 140 First Aid, Safety, and CPR, BIOL 107 Human Biology, BIOL 160 Body Structure and Function, ALHL 104 Introduction to Health Careers

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/health-sciences

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credits)*
V1771 | Honors Certified Clinical Medical Assistant	V1772 | Honors Certified Clinical Medical Assistant 2	V1773 | Honors Certified Clinical Medical Assistant 3

Pathway Courses

V1771 | **Honors Certified Clinical Medical Assistant 1**

This introductory course builds understanding of healthcare systems, patient care, medical terminology, and safety. Through classroom instruction and hands-on practice, students will learn to measure vital signs, provide basic patient care, and understand the principles of infection control. Emphasis is placed on the development of professionalism, communication, and ethical decision-making.

V1772 | **Honors Certified Clinical Medical Assistant 2**

Building on Certified Clinical Medical Assistant 1, students practice vital signs, diagnostic tests, medication administration, and patient record management. The course covers pharmacology, medical office operations, infection control, clinical procedures (phlebotomy, ECG, specimen collection), and administrative tasks such as EHR and billing.

Prerequisite: Honors Certified Clinical Medical Assistant 1

V1773 | **Honors Certified Clinical Medical Assistant 3**

This course covers human body structure and function, focusing on anatomy, physiology, disease, and homeostasis. Through labs and medical technologies, students learn to analyze diagnostics and apply science in clinical care, preparing for advanced healthcare pathways. Students are prepared for healthcare internships and the NHA Certified Clinical Medical Assistant exam.

Prerequisite: Honors Clinical Medical Assistant 2

Career Cluster: *Healthcare & Human Services*

Certified Nursing Assistant | *3 Credits*

Overview This pathway builds healthcare knowledge and patient care skills through classroom, lab, and real-world experiences. Students explore social health factors, technology, and ethical responsibilities while preparing for Maryland Board of Nursing CNA I certification. This program also equips students to transition into advanced healthcare roles or post-secondary pathways, including Licensed Practical Nursing (LPN), Registered Nursing (RN), or other healthcare specialties.

Related Careers Nursing Assistant, Home Health Aide, Patient Care Technician

Industry-Recognized Certification(s) American Heart Association CPR/AED & First Aid Certification, Maryland Board of Nursing: Certified Nursing Assistant (CNA-I)

College Credits (AACC) CCBC HLTH 140 First Aid, Safety, and CPR, BIOL 107 Human Biology, BIOL 160 Body Structure and Function, ALHL 104 Introduction to Health Careers

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/health-sciences

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credits)*
V1871 | Honors Certified Nursing Assistant 1	V1872 | Honors Certified Nursing Assistant 2	V1873 | Honors Certified Nursing Assistant 3

Pathway Courses

V1871 | **Honors Certified Nursing Assistant 1**

This introductory course prepares students for a career as a Certified Nursing Assistant, covering healthcare systems, patient care, medical terminology, and safety. Students practice vital signs, basic care, and infection control while developing professionalism, communication, and ethical decision-making.

V1872 | **Honors Certified Nursing Assistant 2**

Building on Certified Clinical Medical Assistant 1, this course focuses on advanced patient care. Students complete clinical training, gaining experience with diverse populations, including the elderly. Topics include geriatric, restorative, and palliative care, along with preparation for the Maryland Board of Nursing CNA I examination, which combines both the CNA and GNA certifications.

Prerequisite: Honors Certified Nursing Assistant 1

V1873 | **Honors Certified Nursing Assistant 3**

This course explores human anatomy, physiology, and disease to prepare students for advanced patient care. Emphasizing homeostasis and pathophysiology, students use labs and medical technology to analyze data and apply science in clinical settings—ideal for those pursuing LPN or advanced healthcare pathways.

Prerequisite: Honors Certified Nursing Assistant 2

Career Cluster: *Healthcare & Human Services*

Cosmetology | *6 Credits*

Overview This pathway is designed to prepare students for licensure and successful careers in the cosmetology industry. Students develop proficiency in hairstyling, chemical treatments, nail care, skincare, and wellness services while adhering to strict health and safety protocols. Emphasis is placed on professionalism, customer service, and career readiness, including entrepreneurship and salon management. By the completion of Cosmetology 4, students will have gained the technical expertise, industry knowledge, and licensure preparation needed to excel in the dynamic field of cosmetology.

Related Careers Hairstylist, Cosmetologist, Salon Owner, Sales Rep, Esthetician

Industry-Recognized Certification(s) Maryland State Board of Cosmetologists, Cosmetology License

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(2 credits)*	**Course 4** *(2 credits)*
V1501 | **Cosmetology 1**	V1502 | **Cosmetology 2**	V1503 | **Cosmetology 3**	V1504 | **Cosmetology 4**

Pathway Courses

V1501 | **Cosmetology 1**

This introductory course equips students with foundational skills in the cosmetology industry, focusing on hair, nail, and skincare services. Students will develop an understanding of workplace professionalism, infection control, and basic hairstyling techniques.

V1502 | **Cosmetology 2**

Building on Cosmetology 1, this course combines classroom learning and lab practice. Students advance in hairstyling, chemical treatments, nail care, and skincare while following health and safety standards. The course emphasizes professionalism, customer service, and career readiness, including salon management.

Prerequisite: Cosmetology 1

V1503 | **Cosmetology 3**

This course advances students' technical skills in hairstyling, chemical services, and wellness practices while preparing them for the Hairstylist license. Students gain expertise in advanced techniques such as corrective coloring, multi-dimensional color applications, intricate nail art, and specialized facials.

Prerequisite: Cosmetology 2

V1504 | **Cosmetology 4**

This course focuses on preparing students for the Cosmetology License examination and successful entry into the workforce. Students refine their mastery of advanced hairstyling, chemical treatments, and wellness services while integrating business and entrepreneurship concepts. Work-based learning, including internships or salon apprenticeships, allows students to gain hands-on experience and meet state licensing requirements.

Prerequisite: Cosmetology 3

Career Cluster: *Healthcare & Human Services*

Dental Assistant | *3 Credits*

Overview This pathway prepares students for careers in dental assisting and healthcare. The program develops foundational healthcare knowledge and specialized dental assisting skills. Students gain proficiency in infection control, chairside assisting, patient care, and administrative duties while exploring human anatomy and physiology.

Related Careers Dental Assistant, Dental Lab Technician, Dental Office Manager

Industry-Recognized Certification(s) National Board Radiation Health and Safety Certification, National Board Expanded Function Certification, American Heart Association CPR/AED & First Aid Certification

Locations CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credits)*
V1671 | **Honors Dental Assistant 1**	V1672 | **Honors Dental Assistant 2**	V1673 | **Honors Dental Assistant 3**

Pathway Courses

V1671 | **Honors Dental Assistant 1**

This introductory course introduces students to foundational healthcare concepts, emphasizing therapeutic, diagnostic, and support services. Topics include healthcare systems, medical ethics, legal responsibilities, safety, and infection control. Students will develop medical terminology skills, learn basic human anatomy, and explore entry-level healthcare roles, with a focus on dental assisting.

V1672 | **Honors Dental Assistant 2**

Building on Dental Assistant 1, this course emphasizes clinical skills and advanced dental assisting knowledge. Students will deepen their understanding of dental anatomy, radiography, infection control, and chairside techniques. Hands-on skills include taking impressions and assisting with procedures. Students will prepare for the Dental Assisting National Board Radiation Health and Safety (RHS) and Maryland General Dental Assisting Qualified Functions (MDG) certifications.

Prerequisite: Honors Dental Assistant 1

V1673 | **Honors Dental Assistant 3**

This course explores the structure and function of the human body, emphasizing anatomy, physiology, disease, and homeostasis. Students will investigate clinical scenarios through labs and medical technologies, gaining skills to analyze diagnostics and understand therapeutic interventions. Ideal for those pursuing advanced healthcare or dental pathways.

Prerequisite: Honors Dental Assistant 2

Career Cluster: *Healthcare & Human Services*

Pharmacy Technician | *3 Credits*

Overview This pathway equips students with the knowledge and skills needed for careers in pharmacy and healthcare. Students learn healthcare systems, pharmacology, prescription processing, and patient care practices, with hands-on training in compounding, inventory management, and pharmacy technology. The program includes a minimum of 160 hours of work-based learning, internships, or apprenticeships in licensed pharmacy settings, meeting Maryland Board of Pharmacy requirements. Students are prepared to achieve national certification as Certified Pharmacy Technicians (CPhT) and transition into entry-level roles or advanced healthcare pathways.

Related Careers Pharmacy Technician, IV or Sterile Compounding Technician, Pharmacy Informatics Technician

Industry-Recognized Certification(s) Certified Pharmacy Technicians (CPhT)

College Credits (AACC) CCBC HLTH 140 First Aid, Safety, and CPR, BIOL 107 Human Biology, BIOL 160 Body Structure and Function, ALHL 104 Introduction to Health Careers

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/health-sciences

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credits)*
V1971 | Honors Pharmacy Technician 1	V1972 | Honors Pharmacy Technician 2	V1973 | Honors Pharmacy Technician 3

Pathway Courses

V1971 | **Honors Pharmacy Technician 1**

This introductory course introduces students to the foundational knowledge and skills needed for a healthcare career as a Pharmacy Technician. Students learn healthcare systems, patient care, medical terminology, and safety protocols through classroom and hands-on instruction. The course emphasizes professionalism, communication, and ethics.

V1972 | **Honors Pharmacy Technician 2**

Building on Pharmacy Technician 1, this course focuses on national certification and real-world application. Students receive in-depth training in pharmacology, compounding techniques, prescription processing, and inventory management. Emphasis is placed on developing technical and professional skills needed for success in various pharmacy settings, including retail, hospital, and specialty pharmacies. By course completion, students will be prepared to pass the Certified Pharmacy Technician (CPhT) exam and meet Maryland Board of Pharmacy registration requirements.

Prerequisite: Honors Pharmacy Technician 1

V1973 | **Honors Pharmacy Technician 3**

This course focuses on the structure and functions of the human body to provide students with the advanced knowledge needed to deliver effective patient care. Students will explore the relationships between anatomy, physiology, and disease, emphasizing homeostasis, pathophysiology, and responses to the external environment. Laboratory investigations and the use of medical technologies will prepare students to analyze diagnostic data, understand therapeutic interventions, and apply science concepts in clinical scenarios.

Prerequisite: Honors Pharmacy Technician 2

Career Cluster: *Healthcare & Human Services*

Physical Rehabilitation | *Arundel High School* | *3–4 Credits*

Overview This pathway prepares students for careers in physical therapy, occupational therapy, athletic training, and related healthcare fields. The program equips students with the skills needed for post-secondary education and entry-level healthcare roles by focusing on diagnostic and therapeutic practices, workplace professionalism, and critical thinking. Students earn industry certifications such as Basic First Aid, CPR, AED, NSPA Certified Personal Trainer, and AMCA Physical Therapy Aide to enhance employability and career readiness.

Related Careers Physical Therapist Assistant, Occupational Therapist Assistant, Personal Trainer

Industry-Recognized Certification(s) American Heart Association First Aid, CPR, and AED Certifications
Certified Personal Trainer by the National Strength Professionals Association (NSPA)

Locations Arundel High School

Pathway Sequence—Arundel High School

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V1171 | **Honors Physical Rehabilitation 1**	V1172 | **Honors Physical Rehabilitation 2**	V1173 | **Honors Physical Rehabilitation 3** V707 | **Honors CTE Capstone** xxx | **Career Connected Learning Option**

Pathway Courses

V1171 | **Honors Physical Rehabilitation 1**

This introductory course introduces students to the foundational knowledge and skills required to pursue a career in healthcare. Students will gain an understanding of healthcare systems, patient care practices, medical terminology, and safety protocols. Students will learn to measure vital signs, provide basic patient care, and understand the principles of infection control. Emphasis is placed on the development of professionalism, communication, and ethical decision-making. Upon completion, students will earn certification in First Aid, CPR, and AED.

V1172 | **Honors Physical Rehabilitation 2**

Building on Physical Rehabilitation 1, this course focuses on advanced therapeutic practices, injury prevention, and rehab strategies. Students deepen their knowledge of body systems and learn techniques like taping, heat/cold therapy, and mobility support. The course includes career exploration, professional communication, and workplace ethics. Students are prepared for NSPA Certified Personal Trainer certification.

Prerequisite: Honors Physical Rehabilitation 1

V1173 | **Honors Physical Rehabilitation 3**

This course focuses on the structure and functions of the human body to provide students with the advanced knowledge needed to deliver effective patient care. Students will explore the relationships between anatomy, physiology, and disease, with emphasis on homeostasis, pathophysiology, and responses to the external environment. Laboratory investigations and the use of medical technologies will prepare students to analyze diagnostic data, understand therapeutic interventions, and apply science concepts in clinical scenarios.

Prerequisite: Honors Physical Rehabilitation 2

Career Cluster: *Healthcare & Human Services*

Physical Rehabilitation | *Northeast High School* | *3 Credits*

Overview This pathway prepares students for careers in physical therapy, occupational therapy, athletic training, and related healthcare fields. The program equips students with the skills needed for post-secondary education and entry-level healthcare roles by focusing on diagnostic and therapeutic practices, workplace professionalism, and critical thinking. Students earn industry certifications such as Basic First Aid, CPR, AED, NSPA Certified Personal Trainer, and AMCA Physical Therapy Aide to enhance employability and career readiness.

Related Careers Physical Therapist Assistant, Occupational Therapist Assistant, Personal Trainer

Industry-Recognized Certification(s) American Heart Association First Aid, CPR, and AED Certifications
Certified Personal Trainer by the National Strength Professionals Association (NSPA)

Locations Northeast High School

Pathway Sequence—Northeast High School

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*
JPH003 | **Foundations of Health, Exercise and Sport**	JPH005 | **Personal Trainer Fundamentals**	JPH006 | **Care and Prevention of Athletic Injuries**

Pathway Courses

JPH003 | **Foundations of Health, Exercise, and Sport** 1.0sem

Examine the disciplines and subdisciplines in exercise science. Discuss the scientific basis that underlies health, exercise, and sport. Collect, analyze, and interpret laboratory data related to the diverse functions of the human body. Identify career opportunities within exercise science and allied health, including requirements for advanced study and appropriate coursework for the profession.
| Dual (AACC HEA101 3 credits)

JPH005 | **Personal Trainer Fundamentals** 1.0sem

Explore the principles of exercise science and learn how the body responds to physical training. Apply knowledge of physiological adaptations and response to exercise to design training programs for clients, students or athletes to help them achieve their sports and fitness goals. Examine the physiological assessments used to evaluate the components of fitness, including posture, flexibility, balance, core function, cardiorespiratory fitness and muscular strength/endurance. Learn how to facilitate rapport, adherence, self efficacy and behavior change in clients
| Dual (AACC HEA230 | 4 credits)

JPH006 | **Care and Prevention of Athletic Injuries** 1.0sem

Learn theoretical and practical methods of preventing and treating injuries, techniques of taping and bandaging, and use of rehabilitative methods. Understand the mechanisms of injury, strategies for prevention, and techniques to rehabilitate an athlete or client following injury
| Dual (AACC HEA295 | 3 credits)

Hospitality, Events, & Tourism

The Hospitality, Events, & Tourism Career Cluster encompasses a broad range of services and experiences related to food and beverage, lodging, travel, events, and conferences. This Cluster focuses on delivering quality customer service, memorable experiences, and seamless logistics to cater to the needs and preferences of guests, tourists, and event participants. The Cluster is characterized by its diversity, including everything from luxury hotels and international travel to local dining, cultural events, and business conferences, aiming to enhance the overall experience of visitors and attendees.

Baking & Pastry Arts | *3–4 Credits*

Overview This pathway is a comprehensive pathway that equips students with the skills, knowledge, and hands-on experience necessary for careers in the baking and pastry arts. This program offers an in-depth exploration of baking techniques, food science, and industry-standard safety practices while preparing students for professional certifications recognized in the culinary and hospitality sectors.

Related Careers Baker, Pastry Chef, Cake Decorator, Pastry/Baking Manager, Bakery Owner

Industry-Recognized Certification(s) National Restaurant Association ServSafe Food Manager Certification, American Culinary Federation (ACF) Certified Fundamental Pastry Cook (CFPC)

College Credits (AACC) HRM 119 Certification in Sanitation, HRM 111 Introduction to Hospitality Industry, HRM 124 Introduction to Baking and Pastry

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/continuing-education/hotel-culinary-arts-and-tourism

Locations CAT North

Pathway Sequence

Course 1 *(1 credit)*
V0471 | Honors Baking & Pastry Arts 1

Course 2 *(1 credit)*
V0472 | Honors Baking & Pastry Arts 2

Course 3 Options *(1–2 credits)*
V0473 | Honors Baking & Pastry Arts 3
V707 | Honors CTE Capstone
xxx | Career Connected Learning Option

Pathway Courses

V0471 | **Honors Baking & Pastry Arts 1**
This introductory course immerses students in the foundational skills of Baking and Pastry Arts, emphasizing food safety, basic baking techniques, and ingredient functions. Students will explore the science behind baking processes while learning essential skills such as measurement, mixing, and basic pastry techniques.

V0472 | **Honors Baking & Pastry Arts 2**
Building on Baking and Pastry Arts 1, students learn intermediate baking and pastry techniques, focusing on advanced food safety and kitchen management. Students will develop skills in dough preparation, fermentation, and precise temperature control while learning to manage food safety at a supervisory level.
Prerequisite: Honors Baking and Pastry Arts 1

V0473 | **Honors Baking & Pastry Arts 3**
This course deepens students' expertise in advanced pastry and baking techniques, preparing them for certifications and hands-on experience in a professional environment. Students will refine their skills in complex baking methods such as laminated doughs, specialty breads, and plated desserts, with an emphasis on presentation and quality control.
Prerequisite: Honors Baking and Pastry Arts 2

Career Cluster: *Hospitality, Events, & Tourism*

Culinary Arts | *3–4 Credits*

Overview This pathway provides students with a comprehensive education in culinary techniques, food safety, and restaurant management. This program emphasizes the service, operation, and management of food establishments that allows students to progress through a structured curriculum, gaining hands-on experience, refining culinary skills, and developing a deep understanding of high-quality customer service, sanitation, and food preparation.

Related Careers Chef, Recipe Developer, Culinary Manager, Sales/Brand Rep

Industry-Recognized Certification(s) National Restaurant Association ServSafe Food Manager Certification

College Credits (AACC) HRM 119 Certification in Sanitation, HRM 111 Introduction to Hospitality Industry, HRM 121 Introduction to Cooking

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/continuing-education/ hotel-culinary-arts-and-tourism

Locations CAT North, CAT South and all high schools except Severna Park High School, Evening High School, and Mary Moss Academy

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0571 | Honors Culinary Arts 1	V0752 | Honors Culinary Arts 2	V0573 | Honors Culinary Arts 3 xxx | Career Connected Learning Option

Pathway Courses

V0571 | **Honors Culinary Arts 1**

This introductory course teaches students the fundamentals of food safety, sanitation, and basic culinary techniques. Students will gain foundational skills in food preparation, kitchen safety, and nutrition while exploring career paths in the culinary and hospitality industries.

V0572 | **Honors Culinary Arts 2**

Building on Culinary Arts 1, students learn food safety, advanced cooking techniques, and menu planning. Students will explore more complex food preparation methods, including grilling, roasting, and baking, while practicing food presentation and portion control.

Prerequisite: Honors Culinary Arts 1

V0573 | **Honors Culinary Arts 3**

This course focuses on advanced culinary techniques, menu development, and restaurant operations. Students will apply their skills to design and execute multi-course menus, using refined cooking methods and creative presentation techniques. The course emphasizes cost control, menu costing, and the use of seasonal ingredients, encouraging students to consider sustainability in their culinary practices.

Prerequisite: Honors Culinary Arts 2

Management & Entrepreneurship

The Management & Entrepreneurship Career Cluster involves skills and occupations that are essential across all industries, focusing on business administration, operations optimization, strategic planning, workforce management, and entrepreneurship. It merges key areas such as data management and analysis, human resources, general operations, administrative support, project management, and organizational leadership. This Cluster ensures that businesses across all industries efficiently meet their goals, adapt to market changes, and maintain competitive advantage. By emphasizing entrepreneurship, this Cluster supports the creation of new ventures, driving economic growth and innovation and making it a cornerstone of modern economies.

Management & Entrepreneurship | *3–4 Credits*

Overview The Management and Entrepreneurship Program of Study equips students with the knowledge and skills necessary to excel in careers focused on business innovation, project leadership, and strategic management. This program emphasizes entrepreneurial thinking, project management methodologies, and the integration of emerging technologies to foster innovation across industries. Students progress through a rigorous curriculum that builds foundational knowledge of business operations, financial management, digital marketing, and process improvement, advancing to complex concepts such as strategic leadership, data-driven decision-making, and stakeholder management.

Related Careers Management Associate, Project Management Manager, Property Manager, Business Startup

Industry-Recognized Certification(s) Certiport Entrepreneurship and Small Business Certification

College Credits (AACC) ESI 103 Introduction to Entrepreneurship (Annapolis, Arundel, and Severna Park High Schools)

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/about/schools-of-study/business-and-law/business-management

Locations Annapolis High School, Arundel High School, Broadneck High School, Crofton High School, Glen Burnie High School, Meade High School, North County High School, Old Mil High School, Severna Park High School, and Southern High School

Pathway Sequence

Course 1 *(1 credit)*
V0201 | Management & Entrepreneurship 1

Course 2 *(1 credit)*
V0272 | Honors Management & Entrepreneurship 2

Course 3 *(1–2 credits)*
Q09 | AP Business with Personal Finance
V707 | Honors CTE Capstone
xxx | Career Connected Learning Option

Pathway Courses

V021 | **Management & Entrepreneurship 1**

Management and Entrepreneurship 1 introduces students to the essential skills and concepts needed to understand and manage a small business. Students explore foundational topics such as the entrepreneurial mindset, business ownership and structure, marketing strategies, and basic financial literacy. Students learn to organize, analyze, and present business data, supporting their preparation for aligned industry certification(s). The course also emphasizes employability skills—including communication, teamwork, and ethical decision-making—while providing opportunities for real-world application through project-based learning and simulated business experience

V0272 | **Honors Management & Entrepreneurship 2**

Management and Entrepreneurship 2 builds on foundational knowledge by engaging students in advanced business and organizational management skills. Students compare models of business ownership, evaluate legal and ethical responsibilities, and develop practical strategies for business growth and management. The course emphasizes project management principles, business process improvement (including Six Sigma White Belt concepts), and professional project planning tools. Students sharpen their leadership and employability through team-based projects, simulated business problem-solving, and preparation for industry-recognized certifications related to project management and process improvement.

Prerequisite: Management & Entrepreneurship 1

Q09 | **AP Business with Personal Finance**

AP Business with Personal Finance is a rigorous, college-level course that introduces students to core principles of business management, entrepreneurship, and financial decision-making. Students explore topics such as economic systems, business operations, marketing, leadership, financial planning, credit, banking, investing, and consumer decision-making. Through real-world applications, case studies, and projects, students develop the knowledge and skills needed to manage personal finances responsibly and understand how businesses operate in today's global economy. This course prepares students for further study in business, finance, and economics and helps them build practical skills for life beyond high school.

Prerequisite: H Management & Entrepreneurship 2 | **Advanced**

Marketing & Sales

The Marketing & Sales Career Cluster focuses on promoting products, understanding consumer needs, engaging with communities, and driving sales. It integrates digital marketing, data analysis, brand promotion, customer relationship management, strategic communications, human-centered design, and retail strategies to build strong customer connections and support business growth. This Cluster is essential in all industries for creating value, effectively reaching and engaging target audiences, and achieving commercial success in a competitive marketplace.

Marketing Services | *3–4 Credits*

Overview This pathway prepares students for careers in marketing, advertising, and data analysis by integrating foundational principles with advanced technical skills. Students will explore strategies to promote products and services, engage customers, and build brand identity through digital technologies and traditional methods. The program emphasizes leveraging online platforms, social media, and email marketing to design and manage brand campaigns while using data analysis to inform strategic decisions and optimize customer relationships.

Related Careers Marketing Assistant, Marketing Specialist, Market Research Analyst, Digital Marketing, Event Planner

Industry-Recognized Certification(s) Adobe Certified Professional Certifications

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-and-degreeseekers/advertising

Locations Annapolis High School, Arundel High School, Broadneck High School, Chesapeake High School, Glen Burnie High School, Mary Moss Academy, North County High School, Northeast High School, Old Mill High School, Phoenix Academy, Severn Run High School, Severna Park High School, and Southern High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1–2 credits)*
V0371 | Honors Marketing Services 1	V0372 | Honors Marketing Services 2	Q09 | AP Business with Personal Finance V707 | Honors CTE Capstone xxx | Career Connected Learning Option

Pathway Courses

V0371 | **Honors Marketing Services 1**

This course introduces students to core marketing concepts—audience, branding, and the content lifecycle—and develops hands-on skills in content creation and brand design. Students plan simple content calendars; create and adapt assets with Adobe Express; and produce brand-consistent graphics with Adobe Photoshop.

V0372 | **Honors Marketing Services 2**

Marketing 2 builds on Marketing 1 by applying data to inform strategy and by expanding brand asset production. Students collect, clean, and analyze structured datasets; answer marketing questions using analytics platforms and Excel; and communicate insights with clear visuals and short narratives.

Prerequisite: Honors Marketing Services 1

Q09 | **AP Business with Personal Finance**

AP Business with Personal Finance is a rigorous, college-level course that introduces students to core principles of business management, entrepreneurship, and financial decision-making. Students explore topics such as economic systems, business operations, marketing, leadership, financial planning, credit, banking, investing, and consumer decision-making. Through real-world applications, case studies, and projects, students develop the knowledge and skills needed to manage personal finances responsibly and understand how businesses operate in today's global economy. This course prepares students for further study in business, finance, and economics and helps them build practical skills for life beyond high school.

Prerequisite: Honors Marketing Services 2
| Advanced

Public Service & Safety

The Public Service & Safety Career Cluster encompasses roles in local, state, and federal government; legal and justice systems; security; and military operations, all aimed at promoting civic responsibility and ensuring the well-being, security, functionality, and resilience of communities, states, and countries.

Criminal Justice & Law Enforcement | *3 Credits*

Overview This pathway introduces students to foundational knowledge in policing, legal processes, and public safety protocols. Students will gain practical experience through structured coursework, and exposure to law enforcement scenarios.

Related Careers Police Officer, Criminal Investigator, Correctional Officer, Homeland Security Agent

Industry-Recognized Certification(s) Community Emergency Response Team (CERT), National Incident Management System (NIMS) Certification

Career Connected Pathway Anne Arundel Community College
www.aacc.edu/programs-and-courses/credit-anddegree-seekers/law-enforcement-and-criminal-justice

Locations Glen Burnie High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3 Options** *(1 credit)*
JC002 | **Introduction to Criminal Justice**	JCJ004 | **Penology**	JCJ003 | **Police Operations**
JHL004 | **Introduction to Homeland Security**	JLG001 | **Criminal Law**	JCJ005 | **Criminal Justice Ethics**

Pathway Courses

JCJ002 | **Introduction to Criminal Justice**

A survey of history, development, and philosophy of law enforcement. Introduces the local, state, and federal agencies involved in the administration of criminal justice. The court and trial process are included.

| Dual (AACC Course CJS111 | 3 credits)

JCJ003 | **Police Operations 3**

Study of line activities of uniformed police with emphasis on patrol. Areas of study include traffic enforcement, investigation, juvenile crime, vice prevention and other operations

| Dual (AACC Course CJS 112 | 3 credits)

JCJ004 | **Penology**

Studies the history and philosophy of corrections in federal, state and community systems along with probation, parole, and other methods of rehabilitating offenders.

| Dual (AACC Course CJS113 | 3 credits)

JCJ005 | **Criminal Law**

Examines pertinent aspects of federal and state criminal law. Includes basic elements of law and specific issues of interest to law enforcement. Discuss recent court decisions relating to crimes against the person and property.

| Dual (AACC Course LGS215 | 3 credits)

JCJ002 | **Introduction to Homeland Security**

Introduces students to the vocabulary and important components of Homeland Security. Explores the state, national, and international laws impacting Homeland Security. Includes an examination of the most critical threats confronting Homeland Security

JCJ005 | **Criminal Justice Ethics**

Provides a historical analysis of the moral and ethical issues encountered in policing, corrections, probation, parole, prosecution, and criminal defense. Examines the consequences of ethical transgressions in the various areas of criminal justice practice. Topics include history of the criminal justice system, regulation of criminal justice professionals, professional discipline, police brutality, police misconduct, police community relations, correctional misconduct and violations of policy and law. Explores the process for investigation of acts of misconduct and unethical behavior in the criminal justice field.

| Dual (AACC Course HLS111 | 3 credits)

Career Cluster: *Public Service & Safety*

Junior Reserve US Armed Forces (JROTC) | *3 Credits*

Overview This pathway develops student leadership, citizenship, and community service through partnerships with the Army (Meade HS), Navy (Annapolis HS), and Marines (Northeast HS). Military instructors provide rigorous instruction and hands-on activities to prepare students for leadership and civic responsibility. While there is no obligation to join the military, JROTC can lead to advanced placement in college-level ROTC or advanced rank in the Armed Forces. Students also have the opportunity to take the ASVAB test.

Related Careers Military Service, Security Forces, Homeland Security Agent

Industry-Recognized Certification(s) NOCTI Leadership & Employability Skills Credential

Locations Army—Meade High School
Marines—Northeast High School
Navy—Annapolis High School

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*	**Course 4** *(optional 1 credit)*
V2101 | **Military Leadership 1**	V2102 | **Military Leadership 2**	V2103 | **Military Leadership 3**	V2104 | **Military Leadership 4**

Pathway Courses

V2101 | **Military Leadership 1**

This introductory course builds a foundation by introducing cadets to the core mission, heritage, and values of the JROTC program, with emphasis on individual responsibility, personal wellness, and basic military customs and courtesies.

V2102 | **Military Leadership 2**

Building on Military Leadership 1, shifts to small-unit dynamics and effective teamwork. Cadets explore communication models—both verbal and written—alongside followership roles that support mission success.

Prerequisite: Military Leadership 1

V2103 | **Military Leadership 3**

This course challenges cadets to apply leadership concepts in complex scenarios. Through comparative study of leadership styles and situational leadership exercises, students learn to adapt their approach to team needs.

Prerequisite: Military Leadership 2

V2104 | **Military Leadership 4**

This course tasks cadets with strategic leadership, project management, and peer mentoring. Students develop comprehensive plans for a capstone initiative—such as a drill competition or community outreach event—addressing objectives, resources, and risk management.

Prerequisite: Military Leadership 3

Supply Chain & Transportation

The Supply Chain & Transportation Career Cluster encompasses the transfer, coordination, and management of goods from production to consumption, ensuring efficient movement across various modes of transportation including air, ground, and water, as well as maintenance of the respective transport modes. This Cluster integrates logistics and distribution networks to facilitate the seamless flow of materials and products, playing a crucial role in global commerce, economic development, and community health.

Automotive Collision Repair & Refinishing: Collision Repair | *3–4 Credits*

Overview This pathway prepares students for careers in the automotive collision industry. Students progress from foundational safety and repair principles through advanced structural analysis and modern vehicle systems. Throughout the program, students master essential skills including metal straightening, welding, refinishing techniques, and structural repairs while gaining experience with industry-standard tools and equipment. Students learn to analyze damage, write estimates, repair panels, and apply primers and paints. The program aligns with ASE Education Foundation Entry-Level certifications: Non-structural Analysis & Damage Repair, Painting & Refinishing, and Structural Analysis & Damage Repair.

Related Careers Auto Body Repair Technician, Auto Collision Estimator, Auto Body Painter

Industry-Recognized Certification(s) Automotive Service Excellence (ASE) Entry-Level Certifications, Safety and Pollution Prevention Certification (S/P2)

Locations CAT North

Pathway Sequence—Auto Collision Repair Pathway

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*
V3101 | Introduction to Collision Repair and Refinishing	V3102 | Non-Structural Repair & Welding 1	V3103 | Non-Structural Repair & Welding 2
		xxx | Career Connected Learning Option

Pathway Courses

V3101 | **Introduction to Collision Repair and Refinishing**

This foundational course introduces students to core concepts in automotive collision repair and refinishing, with a strong emphasis on safety practices and environmental regulations. Students learn vehicle construction, basic panel repair, damage analysis, and proper tool usage through hands-on experience. The course also introduces surface preparation, paint mixing, color matching, masking, and spray equipment operation. Students gain exposure to primer and clear coat application, defect correction, and quality control methods while learning industry-standard documentation and repair planning processes. This course lays the groundwork for advanced coursework and future preparation for ASE Entry-Level Collision Repair and Painting & Refinishing certifications.

V3102 | **Non-Structural Repair & Welding 1**

Building upon foundational knowledge, this course introduces advanced panel repair techniques and welding procedures aligned with the ASE Entry-Level Certification in Non-Structural Analysis & Damage Repair. Students develop proficiency in GMAW (MIG) welding, plasma cutting, and adhesive bonding. Instruction emphasizes safe equipment operation, metal and plastic repair techniques, and foundational quality control practices. Students gain hands-on experience with panel alignment, fastener selection, and repair procedures while learning to meet industry standards for accuracy and workmanship.

Prerequisite: Introduction to Collision Repair and Refinishing

V3103 | **Non-Structural Repair & Welding 2**

This course expands student skills through complex panel repair procedures and detailed quality control measures. Students learn moveable glass operations, trim removal and installation, and advanced repair techniques for both metal and plastic components. Emphasis is placed on structural tolerances, precision panel fitting, and verification of repair quality. Through practical application, students refine technical skills while adhering to industry-standard inspection, documentation, and quality assurance procedures consistent with professional collision repair environments.

Prerequisite: Non-Structural Repair & Welding 1

Career Cluster: *Supply Chain & Transportation*

Automotive Collision Repair & Refinishing: Auto Refinishing | *3–4 Credits*

Overview This pathway prepares students for careers in the automotive collision industry. Students progress from foundational safety and repair principles through advanced structural analysis and modern vehicle systems. Throughout the program, students master essential skills including metal straightening, welding, refinishing techniques, and structural repairs while gaining experience with industry-standard tools and equipment. Students learn to analyze damage, write estimates, repair panels, apply primers and paints. The program aligns with ASE Education Foundation Entry-Level certifications: Non-structural Analysis & Damage Repair, Painting & Refinishing, and Structural Analysis & Damage Repair.

Related Careers Auto Body Repair Technician, Auto Collision Estimator, Auto Body Painter

Industry-Recognized Certification(s) Automotive Service Excellence (ASE) Entry-Level Certifications, Safety and Pollution Prevention Certification (S/P2)

Locations CAT North

Pathway Sequence—Auto Refinishing Pathway

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*
V3001 | **Introduction to Collision Repair and Refinishing**	V3002 | **Painting and Refinishing 1**	V3003 | **Painting and Refinishing 2**
		xxx | **Career Connected Learning Option**

Pathway Courses

V3001 | **Introduction to Collision Repair and Refinishing**

This foundational course introduces students to core concepts in automotive collision repair and refinishing, with a strong emphasis on safety practices and environmental regulations. Students learn vehicle construction, basic panel repair, damage analysis, and proper tool usage through hands-on experience. The course also introduces surface preparation, paint mixing, color matching, masking, and spray equipment operation. Students gain exposure to primer and clear coat application, defect correction, and quality control methods while learning industry-standard documentation and repair planning processes. This course lays the groundwork for advanced coursework and future preparation for ASE Entry-Level Collision Repair and Painting & Refinishing certifications.

V3002 | **Painting and Refinishing 1**

This specialization course provides students with a foundation in automotive refinishing processes and safety procedures. Students learn the fundamentals of surface preparation, sanding, cleaning, masking, and the safe operation of basic spray equipment. Instruction includes an introduction to paint chemistry, primer application, basecoat and clearcoat processes, and proper shop procedures. Quality standards, environmental compliance, and shop documentation are introduced throughout the course. Students develop the essential skills needed to perform basic refinishing tasks and prepare for more advanced training in refinishing and painting.

Prerequisite: Introduction to Collision Repair and Refinishing

V3003 | **Painting and Refinishing 2**

This advanced course builds on skills developed in Level 1 and continues preparing students for ASE Entry-Level Certification in Painting & Refinishing. Students learn advanced paint mixing, color matching, blending, spray gun setup and application techniques. Instruction includes corrective procedures for common defects, advanced masking, multi-layer refinishing, and final detailing methods. Students gain experience with industry-standard refinishing equipment and expand their understanding of paint chemistry, quality control, documentation, and regulatory compliance. Upon completion, students are equipped with the professional-level refinishing and painting skills required for ASE Entry-Level certification and success in collision repair careers.

Prerequisite: Painting and Refinishing 1

Career Cluster: *Supply Chain & Transportation*

Automotive Technology | *3–4 Credits*

Overview This pathway prepares students for entry into the automotive technician field. This program provides a strong foundation in diagnosing, maintaining, and repairing key vehicle systems, including electrical, chassis, powertrain, and integrated systems. Students gain hands-on experience with industry-standard tools and techniques while developing critical problem-solving and technical skills. The curriculum aligns with ASE Entry Level Certification exams, ensuring students are prepared to earn industry recognized certifications at the conclusion of each course.

Related Careers Auto Service Technician, Shop Manager, Service Writer, Estimator

Industry-Recognized Certification(s) Automotive Service Excellence (ASE) Entry-Level Certifications, Safety and Pollution Prevention Certification (S/P2), Environmental Protection Agency Refrigerant Recovery & Recycling Certification (CFC)

College Credits (CCBC) AUTO 100 Introduction to Automotive Technology

Locations CAT North and CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*
V3201 | **Automotive Basics**	V3202 | **Automotive Technology 1: Maintenance & Light Repair**	V3203 | **Automotive Technology 2: Automotive Service**
		xxx | **Career Connected Learning Option**

Pathway Courses

V3201 | **Automotive Basics**

This introductory course provides students with foundational knowledge of basic automotive systems and the theory behind their operation. Students explore system components, routine servicing concepts, and industry safety and environmental regulations. Instruction emphasizes shop safety, tool identification, proper tool use, and employability skills. Through hands-on activities and problem-based learning, students apply academic knowledge in real-world automotive contexts while developing safe work habits and an understanding of entry-level automotive service procedures.

V3202 | **Automotive Technology 1: Maintenance & Light Repair**

Building upon Automotive Basics, this course focuses on maintenance and light repair of major automotive systems. Students learn principles of vehicle inspection, basic diagnostics, and preventative maintenance while applying safety and environmental regulations. Instruction includes servicing procedures for steering, suspension, brakes, electrical, and engine systems. Emphasis is placed on accurate repair practices, proper tool selection, documentation, and employability skills as students reinforce and transfer academic knowledge through hands-on, industry-aligned activities.

Prerequisite: Automotive Basics

V3203 | **Automotive Technology 2: Automotive Service**

This advanced course expands student proficiency in automotive service through in-depth diagnosis, maintenance, and repair of vehicle systems. Students apply systematic troubleshooting methods, perform more complex service procedures, and adhere to industry safety, environmental, and quality standards. Instruction emphasizes precision, problem-solving, and professional work practices. Through authentic service scenarios, students further develop technical expertise and employability skills in preparation for postsecondary education or entry-level employment in the automotive industry.

Prerequisite: Automotive Technology 1: Maintenance & Light Repair

Career Cluster: *Supply Chain & Transportation*

Marine Maintenance & Repair | *3–4 Credits*

Overview This pathway prepares students for careers in marine service and boat building through hands-on training with industry-standard tools and techniques. Students learn vessel construction, electrical system installation, engine service, and advanced repairs, working with composites, marine-grade woods, and metals. The program emphasizes ABYC standards, systems integration, and diagnostics. Graduates are ready for entry-level roles and the ABYC Marine Service Technician Certification exam.

Related Careers Marine Technician, Motorboat Mechanic, Electronics Technician, Painter, Canvas Technician, Carpenter

Industry-Recognized Certification(s) ABYC Marine Service Technician Certification, Occupational Safety and Health Administration (OSHA) Certification

Locations CAT South

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*
V3301 | Marine Maintenance & Repair 1	V3302 | Marine Maintenance & Repair 2	V3303 | Marine Maintenance & Repair 3
		xxx | Career Connected Learning Option

Pathway Courses

V3301 | **Marine Maintenance and Repair 1**

This foundational course introduces students to the marine industry and essential boat building skills. Students learn shop safety, equipment use, basic lofting, material handling, and boat plan reading. Hands-on projects involve working with wood, composites, and metals, while emphasizing quality, documentation, and marine career pathways.

V3302 | **Marine Maintenance and Repair 2**

Building on Marine Maintenance and Repair 1, this course combines boat construction with marine electrical systems installation. Students learn electrical theory, wiring, circuit testing, and system integration alongside advanced composite layup, woodworking, and metal fabrication. Emphasis is placed on applying skills to real projects, meeting marine standards, and ensuring quality control.

Prerequisite: Marine Maintenance and Repair 1

V3303 | **Marine Maintenance and Repair 3**

This advanced course expands knowledge of marine power systems with a focus on diesel engine theory, drive systems, and integrated propulsion. Students gain hands-on experience in diagnostics, maintenance, and troubleshooting across fuel, cooling, steering, and control systems. Emphasis is placed on ABYC standards, precise measurements, and service documentation. The course prepares students for industry certification through practical training in system testing and safe maintenance practices.

Prerequisite: Marine Maintenance and Repair 2

Career Cluster: *Supply Chain & Transportation*

Medium/Heavy Truck Technician | *4–5 Credits*

Overview This pathway prepares students for careers in diesel technology and heavy equipment maintenance. Throughout the program, students perform essential tasks such as testing electrical circuits, servicing brake systems, conducting engine diagnostics, and aligning steering components. The curriculum aligns with ASE Education Foundation standards, preparing students for ASE Entry-Level certifications.

Related Careers Heavy Equipment Mechanic, Diesel Technician, Equipment Sales, Heavy Equipment Operator

Industry-Recognized Certification(s) Automotive Service Excellence (ASE) Entry-Level Certifications, EPA 609, OSHA 30

Locations CAT North

Pathway Sequence

Course 1 *(1 credit)*	**Course 2** *(1 credit)*	**Course 3** *(1 credit)*	**Course 4** *(1 credit)*
V3401 | Medium/Heavy Truck Basics	V3402 | Medium/Heavy Truck 1	V3403 | Medium/Heavy Truck 2	V3404 | Medium/Heavy Truck Practicum xxx | Career Connected Learning Option

Pathway Courses

V3401 | **Medium/Heavy Truck Basics**

This entry-level course introduces students to the fundamental concepts, systems, and safety protocols of medium/heavy trucks and equipment. Students will explore essential shop practices, employability skills, and basic service procedures for major vehicle systems, including diesel engines, electrical/electronic systems, brakes, and suspension/steering. Emphasis is placed on personal safety, tool use, environmental regulations, and career awareness.

V3402 | **Medium/Heavy Truck 1**

Students build on foundational skills to perform diagnosis and service of M/H truck electrical/electronic systems and brake systems in accordance with ASE M/H Truck Test Specifications (Electrical/Electronic Systems, Brakes). Emphasis is placed on electrical theory, circuit diagnosis, battery/starting/charging systems, lighting, cab systems, air brakes, hydraulic brakes, and brake system safety. Students develop skills to prepare for ASE Entry-Level Electrical/Electronic Systems and Brakes certifications.

Prerequisite: Medium/Heavy Truck Basics

V3403 | **Medium/Heavy Truck 2**

This advanced course focuses on diagnosis and repair of diesel engines and suspension/steering systems following ASE M/H Truck Test Specifications (Diesel Engines, Suspension & Steering). Instruction covers engine mechanical systems, lubrication, cooling, air induction, exhaust, fuel delivery, and emission control. Students also service steering gears, linkages, power steering systems, and suspension components. Prepares students for ASE Entry-Level Diesel Engines and Suspension/Steering certifications.

Prerequisite: Medium/Heavy Truck 1

V3404 | **Medium/Heavy Truck Practicum**

The Practicum provides students with supervised, real-world application of skills in a medium/heavy truck or equipment service environment. Experiences may include internships, apprenticeships, or school-based enterprise operations. Students integrate academic knowledge, technical skills, and workplace competencies, preparing for ASE Entry-Level M/H Truck Maintenance & Light Repair certification.

Prerequisite: Medium/Heavy Truck 2

Career and Technical Education Electives

Career and Technical Education (CTE) elective courses offer students valuable opportunities to explore interests, develop practical skills, and gain insight into a variety of career pathways. While not part of a formal career institute program, these courses support career planning and readiness by building real-world knowledge. CTE electives help students make informed decisions about their futures while strengthening critical thinking, communication, and problem-solving skills essential for any career.

One credit in computer science, technology education, or engineering is required to fulfill the basic technology graduation requirement. Students may not use the same course to satisfy both the basic technology requirement and a credit toward a CTE completer.

Courses that Qualify for Basic Technology Credit	Credits
Intro to Engineering Design	**0.5/sem**
Principles of Engineering	
AP Computer Science A	
AP Computer Science Principles	
Energy/Power/Transportation	**0.5sem**
Engineering Design Concepts	
Foundations of Computer Science	**0.5/sem**
IB Computer Science	
Manufacturing & Construction Technology	**0.5sem**
Practical Programming	

xxx | **CTE Department Aide** (No credit)

This course offers students the opportunity to support CTE instructors by assisting with the preparation and organization of course materials. Students may also provide peer support through tutoring or instructional assistance. This experience helps develop leadership, communication, and organizational skills while gaining insight into instructional roles within CTE programs.

xxx | **CTE Independent Study** 0.5/sem

This course offers self-motivated students the chance to pursue a personalized project in a CTE field of interest with exceptional depth or pace. Guided by a sponsoring teacher, students design a syllabus outlining goals, content, a work plan, and assessment methods. Regular conferences and progress evaluations ensure the project aligns with AACPS guidelines and academic standards.

M22 | **Architect Design Development 1** 0.5sem

This course provides students with an opportunity to develop skills in the preparation of architectural plans using some traditional technical drawing equipment as well as computer-aided design (CAD) applications such as Autodesk Revit. 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.

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.

xxx | **Career Exploration** 0.5sem

This course provides students with an opportunity to experience four career programs offered at the CAT Centers during the course of one semester.

Q63 | **Personal Finance** 0.5sem

This course introduces the fundamentals of financial planning, and basic financial accounting. Students will also explore key personal finance topics such as budgeting, money management, banking, credit, saving, and investing.

Q12 | **Business Law** 0.5sem

This course introduces students to key legal concepts, including sources of law, the judicial system, criminal and civil (tort) law, and contract formation. Students will also explore the Uniform Commercial Code, consumer law, property ownership, and transfer. Current topics such as ethics, workplace issues, and computer crime are also examined.

R844 | **Cybersecurity Fundamentals** 0.5sem

This course teaches the fundamentals of cybersecurity and the basics of the Linux operating system. Build skill sets to address needs in both offensive and defensive cybersecurity. Examine the psychology behind cyber technologies and cyber-crime, as well as the ethics of past, present, and future technologies

M18 | **Energy/Power/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 develop skill working with the tools, equipment, and measurement devices used by engineers and technologists. This course satisfies the Basic Technology graduation requirement.

M840 | **Engineering Design Concepts** 0.5sem

Learn how professionals in engineering fields use a project-based approach to solve engineering challenges. We will discover, practice, and refine the use of all the steps in the Engineering Design Process. Students will design prototypes of devices, engage in hands-on exploratory labs that explore various manufacturing processes such as rapid prototyping. Students will gain confidence by solving problems in team structured environments. This course satisfies the Basic Technology graduation requirement.

M20 | **Engineering Drawing & Design/CAD 1** 0.5sem

In this course, students will learn how technical drawing techniques & symbolism are used to convey ideas 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.

M21 | **Engineering Drawing & Design/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 auxiliary representation, intersections & development, threads & fasteners, assembly drawing, charts, graphs & diagrams.

Prerequisite(s): Engineering Drawing & Design/CAD 1

H30 | **Fashion Design 1** 0.5sem

This course introduces students to the basics of garment and accessory design. Through individualized projects, students will develop and refine their skills in sewing, construction techniques, and creative design.

H31 | **Fashion Design 2** 0.5sem

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 student's skills.

Prerequisite(s): Fashion Design 1

X43 | **Financial Literacy** 0.5sem

This course Introduces students to 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.

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

This course introduces students to the broad field of computer science through engaging, accessible topics. Focusing on core computing concepts rather than specific software or programming languages, students will explore areas such as software and app development, data theory and analysis, cryptography, computer hardware, web development, and the global impact of computing. This course fulfills the Basic Technology graduation requirement.

H10 | **Honors Nutrition** 0.5sem

This course explores the science of nutrition and its impact on personal health and public well-being. Students will examine the six major nutrients, wellness, obesity, eating disorders, sports nutrition, and chronic disease prevention. Additional topics include food safety, technology, and the use of supplements and botanicals. Hands-on lab activities reinforce practical applications.

Q50 | **Introduction to Microsoft Office** 0.5sem

This course introduces students to key computer applications, including word processing, databases, spreadsheets, and basic presentation tools. Emphasis is placed on the common features of these programs and the development of essential skills for formatting academic papers and presentations.

M16 | **Introduction to Robotics Engineering** 0.5sem

This course uses 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.

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. This course satisfies the Basic Technology graduation requirement.

M52 | **Marine Technology** 0.5sem

This course offers an in-depth study of core technologies through topics such as design, propulsion, electronics, and navigation systems. Students apply the engineering design process to build and test a propeller-driven watercraft using both computer simulations and hands-on activities.

xxx | **MDA-113 Medical Terminology** 1.0 sem

This AACC course teaches medical terminology, including prefixes, suffixes, word roots and medical abbreviations. Utilize concepts presented in a body systems approach that emphasizes key anatomical and physiological terms. Additional topics include pathology, diagnostic procedures, and treatment modalities.

M844 | **Practical Programming** 0.5sem

This course incorporates engineering design principles to solve various real life engineering projects. Design, build and test an amusement park ride or design and build a new household system that solves a homeowner's problem. The engineering design process will be used as a framework to guide student solutions and designs. Programmable micro controllers with 'drag and drop' programming software and various sensors will be tools used to accomplish robotic system challenges. This course satisfies the Basic Technology graduation requirement.

M32 | **Technology of Flight** 0.5sem

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.

Q77 | **Web Development** 0.5sem

This course explores the fundamentals of web design, software development, and data collection in a fun project-based curriculum using HTML, CSS, and JavaScript. Students will begin to explore how to create dynamic, functional webpages and websites.

Q09 | **AP Business with Personal Finance** 0.5/sem

AP Business with Personal Finance is a rigorous, college-level course that introduces students to core principles of business management, entrepreneurship, and financial decision-making. Students explore topics such as economic systems, business operations, marketing, leadership, financial planning, credit, banking, investing, and consumer decision-making. Through real-world applications, case studies, and projects, students develop the knowledge and skills needed to manage personal finances responsibly and understand how businesses operate in today's global economy. This course prepares students for further study in business, finance, and economics and helps them build practical skills for life beyond high school.

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

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. This course introduces students to a wide range of computational topics in 7 categories: Algorithms, Abstraction, Data & Information, Programming, Global Impact of Digital Technology, Creativity, & The Internet. 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 yet manageable curriculum that aims to broaden participation in computer science. This course is intended to prepare students for the AP Computer Science Principles Exam. This course satisfies the Basic Technology graduation requirement if not used for Computer and Information Sciences Completer.

Recommended: Algebra 1

R20 | **AP Computer Science A** 0.5/sem

This course serves as a rigorous introduction to object-oriented programming using the Java programming language. Topics covered include input/output, conditionals, loops, functions/methods, basic data structures, and advanced object-oriented programming concepts. The course is intended to prepare students for the AP Computer Science A Exam

Prerequisite(s): AP Computer Science Principles

R33 | **AP Cybersecurity** (available SY27–28) 0.5/sem

This course introduces students to cybersecurity threats, risk management, and defense strategies across digital and physical domains, preparing them for college-level study and real-world impact.

Programs of Choice

Anne Arundel County Public Schools believes strongly in providing innovative educational programs for our students. It is through offering Programs of Choice in AVID, JROTC, Apex Arts, International Baccalaureate (IB), Science, Technology, Engineering, and Mathematics (STEM), Apex Arts, and Signature Programs that students explore their interests, talents, and abilities in a highly specialized and rigorous instructional setting. In the Programs of Choice, students learn about and explore issues current and relevant within their field of study. Students take both pride and ownership in being a part of a Magnet program as they prepare themselves to be future leaders.

AVID

(Advancement Via Individual Determination)

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 students in the academic middle who have the desire to go to college and the willingness to work hard. AVID puts students 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 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 tutors, and participate in enrichment and motivational activities that make college attainable. Students enrolled in AVID are typically required to enroll in at least one of their school's most rigorous 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. Successfully complete an AP/IB course and take the accompanying exam and/or earn college credit for at least one course.
2. Take the SAT or ACT.
3. Complete the senior AVID data and submit it to the AVID Center on time.
4. Participate in the AVID elective course for at least three full high school years. Years do not have to be consecutive, but the third year must be the full senior year.
5. Apply and be accepted into at least one four-year college.
6. Have an unweighted GPA of at least 2.75.

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. AVID tutors are trained in the AVID tutorology process and facilitate sessions with students. Juniors and seniors may apply to become AVID Tutors by meeting with the AVID Site Coordinator and completing a request for alternative credit.

K19 | **AVID 9** [FY] 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 tutorials. 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 using the focused note-taking process. 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.

K20 | **AVID 10** [FY] 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 tutorials. 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 using the focused note-taking process. Students begin more in-depth college and career exploration and prepare for college application essay writing.

K21 | **AVID 11** [FY] 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 tutorials. AVID 11 works toward the 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.

K22 | **AVID 12** [FY] 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 tutorials. AVID 12 works toward the 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.

Centers of Applied Technology North & South

The CAT Magnet Program is an educational choice that prepares students to be both college and career ready. Students have the opportunity to earn Market Value Assets by attaining industry-recognized certifications and/or college credit while still in high school. Students who complete a CAT program also fulfill the completer pathway required for graduation.

Because many of the Career Institutes offered at the Centers of Applied Technology are two semester programs, many students are able to complete the coursework necessary to become both career completers and college completers (DUAL completers).

Students entering high school apply online to participate in a program at either the Center of Applied Technology North or the Center of Applied Technology South. If selected and accepted, students take courses at both their home high school and the assigned CAT Center. CAT Center placement is determined by the student's home school.

The CAT Centers offer a variety of CTE Career Institutes that are guided by industry standards, workforce partners, and local labor market demand. Please note that not all Career Institutes are available at both CAT North and CAT South.

Agriculture
- CASE Natural Resources (CAT North Only)

Arts, Entertainment, & Design
- Animation and Game Development (CAT South Only)
- Graphic Communications (CAT North Only)

Construction
- Carpentry
- Electrical
- Facilities Management (CAT North Only)
- Heating, Ventilation, Air Conditioning, & Refrigeration
- Masonry (CAT North Only)
- Plumbing
- Welding

Digital Technology
- Networking

Education
- Teacher Academy of Maryland

Healthcare & Human Services
- Barbering (CAT North Only)
- Certified Clinical Medical Assistant
- Certified Nursing Assistant
- Cosmetology
- Dental Assistant (CAT South Only)
- Pharmacy Technician

Hospitality, Events, & Tourism
- Baking & Pastry Arts (CAT North Only)
- Culinary Arts

Supply Chain & Transportation
- Automotive Collision Repair & Refinishing (CAT North Only)
- Automotive Technology
- Marine Maintenance & Repair (CAT South Only)
- Medium/Heavy Truck Technician (CAT North Only)

T96 | **Career Exploration** 0.5/sem

Career Explorations provides students with an opportunity to experience four different career programs during one semester. Although this course in 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.

JROTC

(Junior Reserve Officers' Training Corps)

Anne Arundel County Public Schools offers three Junior Reserve Officers' Training Corps (JROTC) programs focusing on student leadership, citizenship, and service to the community. Through partnerships with the United States Army (Meade HS), Navy (Annapolis HS) and Marines (Northeast HS), instructors from all three branches prepare students in grades 9–12 for leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens through rigorous instruction and hands-on activities.

Skills emphasized across all three branches:

- Leadership
- Citizenship
- Physical fitness
- Character

JROTC prepares students for life and they are not under any obligation to join the military. However, if they choose to further their interest in the military, satisfactory completion of the JROTC program can lead to advanced placement credit in the Senior ROTC program (college level) or advanced rank in any of the Armed Forces.

AACPS offers the three JROTC Leadership Programs in Magnet/Cluster structure.

Navy JROTC Cluster:

- Annapolis High School
- Broadneck High School
- Crofton High School
- South River High School
- Southern High School

Army JROTC Cluster:

- Arundel High School
- Glen Burnie High School,
- North County High School
- Meade High School

Marines JROTC Cluster:

- Chesapeake High School
- Northeast High School
- Old Mill High School
- Severna Park High School
- Severn Run High School

Similar to CAT Centers, the JROTC Magnets will remain partial-day programs with students engaging at the host site for periods 3 and 4 on an alternating day basis. This will allow them to remain members of the home school community while pursuing JROTC.

Navy JROTC

The purpose of Navy JROTC is to instill in students the value of citizenship, service to the United States, personal responsibility and a sense of accomplishment. Specific goals for the Naval Junior Reserve Officers Training Corps (NJROTC) program and course work include patriotism, developing informed citizens and responsible citizens; promoting habits of orderliness and precision; developing a high degree of self-discipline and leadership; promoting an understanding of the basic elements and requirements for national security; developing respect for and an understanding of the need for constituted authority in a democratic society; providing incentives to live healthy and drug-free lives; developing leadership potential; promoting high school completion; providing information on the military services as a possible career.
The NJROTC program is offered to students in grades 9–12. These courses are available at Annapolis High School but may be taken by students enrolled at other high schools that are willing to provide their own transportation, providing there is room at Annapolis. All uniforms, texts, insignia, and training materials are provided.

X50 | **Honors Navy Junior ROTC 1** [FY] 0.5/sem

Naval Science 1 is the first of the Naval Science program. The NJROTC program emphasizes each person's responsibilities in democratic society. The program includes classroom instruction, physical fitness, and military drill, wearing the correct uniform, practicing military customs and courtesies, and basic leadership training. Students will be introduced to leadership theories on ethics and values. Instructional topics also include naval ships and aircraft, citizenship, and U.S. government and other forms of government, wellness, and fitness, geography and survival skills. The program is designed to motivate students to use the skills learned in NJROTC to be successful in high school, in advanced education and in other education and training. Students must meet grooming and discipline standards.

X51 | **Honors Navy Junior ROTC 2** [FY] 0.5/sem

This course continues the instruction offered in Naval Science 1 at an advanced level. The second level course is intended to meet the needs of cadets who desire further training in Naval subjects and to gain additional leadership experiences. Topics include: Maritime History, Leadership, Maritime Geography, Meteorology, Astronomy, Physical Science, and Oceanography. Naval Science 2 and 3 topics may be alternated annually if approved by the senior instructor. Students must meet grooming and discipline standards.

X52 | **Honors Navy Junior ROTC 3** [FY] 0.5/sem

This course continues the instruction offered in Naval Science 1 and 2 at an advanced level. The third level course is designed to meet the needs of cadets who desire advanced training in Naval subjects and to gain additional leadership experiences while holding cadet officer positions. Cadets may also be selected to staff positions. Topics include: National Security, Naval Operations and Support Functions, Military

Law, International Law, Ship Construction, Shipboard Organization, Seamanship, Navigation, Naval Weapons and Aircraft. Naval Science 2 and 3 topics may be alternated annually if approved by the senior instructor. Students must meet grooming and discipline standards.

X53 | **Honors Navy Junior ROTC 4** [FY] 0.5/sem

This course continues the instruction offered in Naval Science 1, 2, and 3 at an advanced level. The fourth level course is designed to meet the needs of senior cadets participating in the full four-year NJROTC program. Fourth year NJROTC cadets comprise the majority of the command staff responsible for planning, organizing, and administering unit activities. Cadets also receive course work in advance leadership and organizational theory; ethics and workshops on college preparation; and career exploration. Students must meet grooming and discipline standards.

Army JROTC

Students may take anywhere from one semester to eight semesters of AJROTC, earning from 0.5 to 4 elective credits. These courses prepare students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. All uniforms, texts, insignia, and training materials are provided. All classes maintain a focus on physical fitness through routine physical training. Additionally, all cadets complete the entire National Endowment for Financial Education (NEFE) six phase High School Financial Planning Program.
Cadets may have the opportunity to participate in several co-curricular activities offered by JROTC:

- JROTC Leadership Challenge and Academic Bowl (JLAB): a competitive program that imparts values of leadership and citizenship while preparing for higher education milestones like college entrance exams.
- JROTC Raider Challenge: A competitive program for JROTC Cadets in five different fitness and skill events.
- Drill Competitions: Programs for traditional drill formations including regulation and exhibition/pageantry categories.
- JROTC Cadet Leadership Challenge (JCLC): Approximately ten percent of students in the program are afforded the opportunity to attend a six day camp conducted at Fort A.P. Hill, VA, where cadets are provided the opportunity to participate in a safe, healthy, and fun training environment that is both physically and mentally challenging, to provide hands-on training designed to develop leadership, discipline, teamwork, and self-confidence. Cadets are provided adventure training not normally available on campus in order to practice leadership in a challenging environment and allow them to participate in citizenship-building exercises in a military setting.
- Various field trips/college visits to include the U.S. Naval Academy at Annapolis, MD, the U.S. Military Academy at West Point, NY, as well as others.

The AJROTC program is offered to students in grades 9–12. These courses are available at Meade High School but may be taken by students enrolled at other high schools that are willing to provide their own transportation, providing there is room at Meade. All uniforms, texts, insignia, and training materials are provided.

X55 | **Honors Army Junior ROTC 1** [FY] 0.5/sem

Focus is on the Foundations of Army JROTC. Topics of instruction include: Being a Leader, Knowing Yourself, Study Skills, Achieving a Healthy Lifestyle, The Globe, You the People—Citizenship Skill, and Your Job as an American Citizen.

X56 | **Honors Army Junior ROTC 2** [FY] 0.5/sem

As the second year in the program, cadets earn leadership opportunities in the classroom. Topics of instruction include: Focus on The Nation's Defense Forces; How to Lead; Communication Skills; Conflict Resolution; Maps, Map Reading and Land Navigation; and Founding and Growth of a Nation (history of the U.S. from 1776 to present).

X57 | **Honors Army Junior ROTC 3** [FY] 0.5/sem

Third year cadets take on the highest leadership roles at the classroom level. Topics of Instruction include: Leading Situations; Making a Difference through Service Learning; Career Planning; the Federal Judicial System; and Sources of Power.

X58 | **Honors Army Junior ROTC 4** [FY] 0.5/sem

Fourth year cadets assume the leadership roles of the entire Mustang Battalion. Topics of Instruction for the senior class include: Planning Skills; Social Responsibility; Drug Prevention/Intervention; Exploring the World; and Advanced Citizenship and American History.

Marine Corps JROTC

The Marine Corps JROTC program, is designed to instill in high school students a value of citizenship, character, service to the United States, personal responsibility, and a sense of accomplishment. It prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. The program is a stimulus for promoting graduation from high school and it provides instruction with rewarding opportunities that will benefit the student, community, and nation.

The Marine Corps JROTC program is a cooperative effort on the part of the Marine Corps and the host institution to provide secondary school students with opportunities for total development. Satisfactory completion of the program can lead to advanced placement credit in the Senior ROTC program or advanced rank in the Armed Forces.

The Marine Corps JROTC program is one of the Marine Corps' contributions to assisting America's youth to become better citizens. The program produces successful students and productive adults, while fostering in each school a more constructive and disciplined learning environment. This program makes substantial contributions to many communities and ultimately to the nation's future. It is the centerpiece of the Department of Defense's commitment to America's Promise for Youth as it emphasizes community service and teen anti-drug efforts.

This program is offered to students in grades 9–12. These courses are available at Northeast High School but may be taken by students enrolled at other high schools that are willing to provide their own transportation, providing there is room at Northeast. All uniforms, texts, insignia, and training materials are provided.

X66 | **Honors Marine Corps Junior ROTC Level 1** [FY] 0.5/sem

Level 1 focuses on building character and development of leadership. It is designed to:

- Create informed, patriotic, and responsible citizens,
- Develop responsible young adults who are physically, mentally, and morally fit,
- Develop informed and civic-minded young adults prepared for higher education, civilian careers, and public service, and
- Instill discipline, respect, and responsibility through military-related subjects and activities.

Cadets are expected to wear designated Marine Corps uniforms on a weekly basis and adhere to appropriate grooming standards.

X67 | **Honors Marine Corps Junior ROTC Level 2** [FY] 0.5/sem

Level 2 MCJROTC cadets focus on leadership principles, Esprit De Corps, citizenship, and personal growth and responsibilities. Cadets will demonstrate leadership theory, style, and principles. Cadets will additionally perform leadership roles within the Cadet Company and extracurricular activities. These activities include Drill Team/Color Guard, Raider (physical fitness) team, Air Rifle Team, orientation trips, community service projects, and social events.

X68 | **Honors Marine Corps Junior ROTC Level 3** [FY] 0.5/sem

The Level 3 course builds upon the knowledge and experience attained during Leadership Education 1 and 2. The course continues to stress classroom instruction and practical application in leadership education, citizenship, personal growth and responsibility, self-discipline, and character development. Training includes leadership, physical fitness, drill, and ceremonies, military customs and courtesies, general military subjects, air rifle marksmanship. During this year, there is also an increased emphasis on the consideration and exploration of post high school educational and career opportunities.

X69 | **Honors Marine Corps Junior ROTC Level 4** [FY] 0.5/sem

The Level 4 course allows senior cadets the opportunity to serve as both a training facilitator for the MCJROTC instructional staff and as a mentor for junior cadets. Senior cadets are expected to display positive attitudes, requisite leadership ability, and perform in leadership roles within the MCJROTC cadet organization. Senior cadets are also assigned to Leadership Education I–III classes; modeling leadership, serving as a role model, conducting training, and/or mentoring junior cadets as a means to enhance their leadership education and prepare them for a career after high school.

Magnet Programs

The following courses are available only to students enrolled in a Magnet Program.

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, the student takes courses at their Magnet School, located at one of the public schools in the county. The Magnet School is determined by program and the student's home school. Students entering high school may apply for one of the following Magnet Programs in AACPS:

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

Apex Arts

Annapolis and Broadneck High Schools

Apex Arts' mission is to provide students with rigorous, immersive, and collaborative artistic experiences that are rooted in the creative process, while preparing them for an array of future opportunities. Students focus their study in a specialized arts area of interest (Primes): Creative Writing, Dance, Film & New Media, Music (Band, Guitar, Orchestra, Piano, or Vocal), Theatre (Acting or Design & Production), or Visual Arts. Apex Arts auditions are open to all students in Anne Arundel County as part of the shared Programs of Choice vision to offer all students and families choice in their education. (For more information about the Magnet application process, visit www.aacps.org/page/magnet-programs).

Apex Arts students will be challenged both academically and artistically through advanced coursework and arts-intensive co-curricular opportunities. In addition to the extensive instruction that each student will receive in his or her chosen Prime, all students will be exposed to a variety of other artistic disciplines while in the program. Apex Arts students will receive instruction from qualified teachers and Artists-in-Residence to develop the skills needed to be a well-rounded artist or performer. Upon graduation, students will be prepared to pursue a career in an arts field or attend an arts school, conservatory, or four-year institution of higher learning.

Beyond the regular school day, Apex Arts students will participate in Apex + instruction and Professional Arts Experiences. In Apex +, students will explore a range of opportunities in a variety of settings outside of the traditionally scheduled school day. During their Professional Arts Experience (which may occur on weekends and/or evenings), students will have the opportunity to attend Master Classes with professional artists, see professional productions and exhibits, and create their own work to perform or present publicly.

Additionally, students will develop skills and knowledge within the business world of the arts industry. They will be able to think collaboratively to promote one's own artistic vocation or avocation. Apex Arts courses are only available to students enrolled in the Apex Arts Magnet Programs.

Mandatory Courses

9th–12th Grade Requirement—All Primes

P59 | **Apex + (High School) 1–4** [FY] 0.5/sem

Apex + explores the artistic and design process through interdisciplinary problem-based learning modules providing students with a global view of the creative process and the application in creative and collaborative thinking and design.

11th Grade Requirement—All Primes

P15 | **Honors Apex Arts Business for the Arts** 0.5sem

This course is designed to introduce students to the fundamental skills necessary to thrive in business settings as creative professionals. The course will focus on professional etiquette, verbal and written communication skills, career explorations, branding, and marketing through project-based learning experiences. Students will learn how to integrate these skills and habits into their creative process as well as apply them to other businesses. Mock interviews and networking experiences will be embedded into the course with local community partners in the arts, allowing students to learn about career opportunities and put their new skills into practice. This course is required for all junior level Apex Arts students.

12th Grade Requirements—All Primes

P32 | **Honors Apex Arts Senior Capstone Collaborative** [FY] 1.0/sem

This required course provides the Apex Arts senior with the support to conceive, create, and produce an original collaborative performance, artwork, or exhibition (production, art exhibit, ensemble musical or dance performance, recitation, design exhibit, film screening). Students' work review occurs throughout the beginning of the course, followed by a final review prior to the presentation of the senior capstone project 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 Apex Arts Magnet Program only. Students must also register for Apex Arts Senior Capstone Solo. This course is available at Studio 39 only.

P31 | **Honors Apex Arts Senior Capstone Solo** [FY] 1.0/sem

This required course provides the Apex Arts 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). 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 Apex Arts Magnet Program only. Students must also register for Apex Arts Honors Senior Capstone Collaborative. This course is available at Studio 39 only.

Prime Specific Courses

Creative Writing

P05 | **Honors Apex Arts Creative/Dramatic Writing 1** [FY] 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.

P06 | **Honors Apex Arts Creative/Dramatic Writing 2** [FY] 0.5/sem

This course will enable students to continue their development of a personal writing style building upon the principles and experiences of Apex Arts Creative and Dramatic 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.

PV77 | **Honors Apex Arts Creative Writing: Genre Studies 1** [FY] 0.5/sem

Genre Studies 1 is designed for students in the third year of the Apex Arts Magnet Program on the Creative Writing prime. This course provides intensive study of four specific styles of creative writing: short stories and novels, poetry, and lyrics, playwriting, 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.

PV78 | **Honors Apex Arts Creative Writing: Genre Studies 2** [FY] 0.5/sem

Genre Studies 2 is designed for students in the fourth year of the Apex Arts Magnet Program in the Creative Writing prime. This course provides intensive study of four specific styles of creative writing: memoir and creative non-fiction, magical realism, fantasy, and professional publication. 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 Apex Arts Honors Senior Capstone Solo course in which students are concurrently enrolled. This course is available only at Annapolis High School.

P10 | **Honors Apex Arts Media/Writers Workshop 1** [FY] 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.

P11 | **Honors Apex Arts Media/Writers Workshop 2** [FY] 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.

P12 | **Honors Apex Arts Media/Writers Workshop 3** [FY] 0.5/sem

Students use technology 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 Apex Arts Magnet Program in the Creative Writing Prime. This course is available only at Annapolis High School.

P13 | **Honors Apex Arts Media/Writers Workshop 4** [FY] 0.5/sem

This course continues use of technologies introduced in Apex Arts Media/Writers 2 and 3. Students will examine historical works in conjunction with current digital texts to create an authentic connection between the works. In connection with their Capstone project, students will use their knowledge of creating, refining, and collaborating to publish works designed for various digital platforms. This course is designed for students in the fourth year of the Apex Arts Magnet Program in the Creative Writing Prime. This course is available only at Annapolis High School.

Dance

PV05 | **Honors Apex Arts Ballet 1** [FY] 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 Apex Arts 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.

PV06 | **Honors Apex Arts Ballet 2** [FY] 0.5/sem

This course will further develop the Apex Arts Dance Prime 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.

PV07 | **Honors Apex Arts Ballet 3** [FY] 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.

PV08 | **Honors Apex Arts Ballet 4** [FY] 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 degrees of proper 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.

PV01 | **Honors Apex Arts Modern Dance 1** [FY] 0.5/sem

This course will provide Performing & Visual Arts Magnet Program Dance Prime 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.

PV02 | **Honors Apex Arts Modern Dance 2** [FY] 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.

PV03 | **Honors Apex Arts Modern Dance 3** [FY] 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.

PV04 | **Honors Apex Arts Modern Dance 4** [FY] 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.

Film & New Media

P37 | **Honors Apex Arts Elements of Film & New Media 1** [FY] 0.5/sem

Students will explore film and new media arts. Through the study and production of film, video, animation, photography, installation, and performance, students will enhance their own skills and develop their personal voice. Throughout the course students will further their understanding and articulation of the concepts, vocabulary,

and techniques through the analysis of various genres and eras in film and new media art. Students will use state of the art computer-based technologies and equipment to learn and practice film-making techniques. This course is available only at Annapolis High School.

P38 | **Honors Apex Arts Elements of Film & New Media 2** [FY] 0.5/sem

This course enhances students' understanding of both the conceptual and technical aspects of filmmaking and new media arts. Through the analysis of master works and application through technical based instruction, students learn about artistic endeavors in film, video, animation, photography, 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.

P39 | **Honors Apex Arts Elements of Film & New Media 3** [FY] 0.5/sem

This course allows students to identify a concentration of media within the film and new media genre, with specialized instruction to help cultivate their personal vision as an artist. Students will build upon prior knowledge as well as learn new techniques and have access to higher level technology and equipment within their concentration. Students will study master work by artists relevant to their content matter and within the genre of their concentration This course is available only at Annapolis High School.

P40 | **Honors Apex Arts Elements of Film & New Media 4** [FY] 0.5/sem

This course allows students to identify a concentration of media within the film and new media genre, with specialized instruction to help cultivate their personal vision as an artist. Students will build upon prior knowledge and have access to higher level technology and equipment within their concentration. Students will study master work by artists relevant to their Capstone Project. This course is available only at Annapolis High School.

P53 | **Honors Apex Arts Film and New Media Studio 1** [FY] 0.5/sem

This course is designed to build the student's artistic abilities and observational capabilities. This course is designed to help students understand the creative process through the application of technical skills learned in the Elements of Film and New Media Course. Students will build artistic habits including idea generation, sketchbooks/visual journals, portfolio development, critique, and reflection while creating original work in the genres of Film and New Media Arts. This course is available only at Annapolis High School.

P54 | **Honors Apex Arts Film and New Media Studio 2** [FY] 0.5/sem

This course is designed to build upon knowledge and processes developed in Apex Arts Film and New Media Studio 1. Students will continue to build artistic habits and develop their vision as an artist through the creative process. This course is available only at Annapolis High School.

P55 | **Honors Apex Arts Film and New Media Studio 3** [FY] 0.5/sem

This course is designed to build upon knowledge and processes developed in Apex Arts Film and New Media Studio 2. Students will be guided in applying previous knowledge of artistic habits and the creative process in order to create a body of artwork for their portfolios and prepare for Senior Capstone projects. This course is available only at Annapolis High School.

P56 | **Honors Apex Arts Film and New Media Studio 4** [FY] 0.5/sem

This course is designed to build upon knowledge and processes developed in Apex Arts Film and New Media Studio 3. Students will be guided in applying previous knowledge of artistic habits and the creative process in order to create a body of artwork for their portfolios. Students will develop focused work to be presented as part of their required Senior Capstone projects. This course is available only at Annapolis High School.

Music

P29 | **Honors Apex Arts Music Technology** .5sem

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.

P72 | **Honors Apex Arts Music Theory/Composition with a Concentration in Music Technology** 0.5sem

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 Apex Arts Music History Styles, Composition, and Audio Engineering** 0.5sem

Apex Arts 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.

PV5 | **Honors Apex Arts Drum Lab** 0.5sem

Apex Arts 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 to breathe, relax, and embrace rhythms. Students will learn the basic rhythmic foundation of the world's most popular rhythms: reggae, samba, hip-hop, funk, salsa, belly dance, rock 'n roll, African 6/8 and more. The course will incorporate ENSEMBLE playing and 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.

P64 | **Honors Apex Arts Ensemble Band 1** [FY] 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.

P65 | **Honors Apex Arts Ensemble Band 2** [FY] 0.5/sem

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.

P66 | **Honors Apex Arts Ensemble Band 3** [FY] 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.

P67 | **Honors Apex Arts Ensemble Band 4** [FY] 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.

P60 | **Honors Apex Arts Guitar 1** [FY] 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.

P61 | **Honors Apex Arts Guitar 2** [FY] 0.5/sem

Designed to build upon the earlier year of study, this course provides the Guitar Prime with more advanced instruction in all styles of guitar performance increase the robust and extensive performance skills and opportunities for the Guitar Prime 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.

P62 | **Honors Apex Arts Guitar 3** [FY] 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.

P63 | **Honors Apex Arts Guitar 4** [FY] 0.5/sem

This course is designed to refine students' musicianship by 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.

PV42 | **Honors Apex Arts Piano 1** [FY] 0.5/sem

This course is designed to strengthen and refine the Apex Arts 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 masterclass setting while playing a wide repertoire of keyboard and piano music literature as a solo artist and in ensembles. Available at Broadneck High School only.

Prerequisite(s): *Students must have prior piano/keyboard performance experience/skills and have been accepted to the instrumental music piano program. Students are concurrently enrolled in Honors Music Theory.*

PV43 | **Honors Apex Arts Piano 2** [FY] 0.5/sem

Building on skills and concepts in Piano 1, students' keyboard/piano skills will be improved 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 masterclass setting while playing a wide repertoire of keyboard and piano music literature as a solo artist and in ensembles. This course is available only at Broadneck High School.

PV44 | **Honors Apex Arts Piano 3** [FY] 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.

PV45 | **Honors Apex Arts Piano 4** [FY] 0.5/sem

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.

P68 | **Honors Apex Arts Ensemble Orchestra 1** [FY] 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 music 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.

P69 | **Honors Apex Arts Ensemble Orchestra 2** [FY] 0.5/sem

Designed to build on the earlier year of study to further strengthen and refine the student's 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.

P70 | **Honors Apex Arts Ensemble Orchestra 3** [FY] 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, and twenty-first century cinematic scores. This course is available at Broadneck High School only.

P71 | **Honors Apex Arts Ensemble Orchestra 4** [FY] 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.

P76 | **Honors Apex Arts Vocal Music Performance 1** [FY] 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.

P77 | **Honors Apex Arts Vocal Music Performance 2** [FY] 0.5/sem

Designed to continue to improve upon the students' vocal music technique. Building upon fundamentals learned in Apex Arts 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.

P78 | **Honors Apex Arts Vocal Music Performance 3** [FY] 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 Apex Arts 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.

P79 | **Honors Apex Arts Vocal Music Performance 4** [FY] 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 auditioning for college and career choices. This course is available only at Broadneck High School.

Theatre—All

P80 | **Honors Apex Arts Theatre History/Stagecraft 1** [FY] 0.5/sem

Students will be introduced to 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.

P81 | **Honors Apex Arts Theatre History/Stagecraft 2** [FY] 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.

Theatre—Acting

P84 | **Honors Apex Arts Acting/Theatre Performance** [FY] 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.

PV67 | **Honors Apex Arts Actor's Instrument** [FY] 0.5/sem

Theatre students of the Apex 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 various 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. This course is available only at Annapolis High School.

PV68 | **Honors Apex Arts Actor's Instrument 2** [FY] 0.5/sem

Theatre students of the Apex 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 locomotor 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 various 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. This course is available only at Annapolis High School.

PV83 | **Honors Apex Arts Acting in the American Theatre 1** [FY] 1.0/sem

Utilizing the acting fundamentals put into place by the previous two 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 evenig 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.

PV84 | **Honors Apex Arts Acting in the American Theatre 2** [FY] 1.0/sem

Utilizing the acting fundamentals put into place by the previous three 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. 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.

Theatre—Design & Production

P88 | **Honors Apex Arts Theatre Design & Production 1** [FY] 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.

P89 | **Honors Apex Arts Theatre Design & Production 2** [FY] 0.5/sem

In this course technological literacy is paramount as design work is created, transferred, and shared through various electronic media and applicable software. Design students work collaboratively and communicate effectively through ongoing, internal production meetings. This course is available only at Annapolis High School.

P90 | **Honors Apex Arts Theatre Design & Production 3** [FY] 0.5/sem

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, House Management, and Event Management. Students will focus on the specific 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.

P91 | **Honors Apex Arts Theater Design & Production 4**[FY] 0.5/sem

In this course students will capitalize on the prior intensive study in the Theatrical Design, Production, and Management areas to synthesize those skills as a "Lead Designer". In this lead designer capacity, students will apply skills within their area of specialization to create real world connections to productions within Apex Arts or non-Apex Arts school-based productions. Students will apply collaborative skills in working with other members of the production team as well as applying best practices in Theatrical Design and Production. This course is available only at Annapolis High School.

PV81 | **Honors Apex Arts Design Arts:** [FY] 0.5/sem
Costume, Scenic, Lighting, Sound, Craft, Construction

Students in the Design and Production 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 of production designs) are additional requirements of the course. This course is available only at Annapolis High School.

PV82 | **Honors Apex Arts Design Arts 2** [FY] 0.5/sem

Students in the Design and Production Prime will continue to 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. Attendance at professional productions (with assigned written analyses of production designs) are additional requirements of the course. This course is available only at Annapolis High School.

Visual Arts

P41 | **Honors Apex Arts Visual Arts Studio 1** [FY] 1.0/sem

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. This course is available only at Annapolis High School.

PV71 | **Honors Apex Arts Visual Arts Studio 2** [FY] 1.0/sem

This is a course designed to strengthen and refine the student's artistic abilities and observational capabilities. Students will be introduced to material, techniques, and conceptual methods to further develop their

art making practice. Emphasis will be placed on rigorous development of skills, concept development, choice-making, execution, and presentation through a wide variety of medium. Students will consider their role as visual communicators with consideration of audience, artistic attitude and personal mission as they develop studio practice. Sketchbooks/Visual Journals will be required to record ideas, research, and to document their step by step discovery process. This course is available only at Annapolis High School.

PV72 | **Honors Apex Arts Visual Arts Studio 4** [FY] 0.5/sem

Students will hone and refine their artistic abilities and their observational drawing skills. Students will experiment with new medias and techniques through a combination of class-based instructions, working with guest artists and field trips. Students will continue to explore their two-dimensional and three-dimensional techniques to develop a broader artistic vocabulary and develop their visual communication skills. Sketchbooks/Visual Journals will be required to record ideas, research, and to document their step by step discovery process. This course is designed for seniors in connection with their capstone project. This course is only available at Annapolis High School.

P01 | **Honors Apex Arts Visual Arts/Portfolio Development 1** 0.5sem

Students will develop a body of work 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. Through critiques, students will articulate the aesthetic characteristics and meaning of personal, peer, and master artworks. This course is available only at Annapolis High School during the fall semester of the freshman Year.

P02 | **Honors Apex Arts Visual Arts/Portfolio Development 2** 0.5sem

Designed to expand students' analysis skills through examination of a body of work created through creative problem solving that involves personal aesthetic choices and variety of media. Adding to their portfolio, students will learn to value their work and examine artistic relationships based on personal criteria and 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 what they are trying to communicate through a work of art and express their analysis in artist's statements and peer critiques. This course is available only at Annapolis High School during the spring semester of the freshman year.

P04 | **Honors Apex Arts Visual Arts/Portfolio Development 4** [FY] 0.5/sem

Students will continue to expand upon their work in analysis and examination of their artistic body of work. By developing their final portfolio, students will understand the value of their work through oral and written critiques, examining their artistic and aesthetic characteristics of the work while developing a creative process to criteria in contemporary practices. Students will utilize traditional and digital formats with multiple display options to design and present their overall body of work. This course is designed for seniors in connection with their capstone project. This course is only available at Annapolis High School.

Apex Arts Electives—Studio 39

PV63 | **Honors Apex Arts Printmaking** [FY] 0.5/sem

Apex Arts 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 Apex Arts Color Theory** 0.5sem

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.

PV73 | **Apex Arts Anatomy and Figure Drawing** 0.5sem

Apex Arts 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.

P57 | **Honors Apex Arts Art: Space & Time** 0.5sem

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.

PV52 | **Apex Arts Acting for the Artist** 0.5sem

This acting course for non-acting students expands the Apex Arts 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 Apex Arts students interested in musical theatre. Not for Apex Arts acting students.)

PV53 | **Apex Arts 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 Apex Arts students interested in musical theatre. Not for Apex Arts vocal students.)

PV54 | **Apex Arts 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 to 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 Apex Arts students interested in musical theatre. Not for Apex Arts dance students.)

PV56 | **Apex Arts 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 an introductory look at sound systems, both analog and digital, from initial acoustic inception to power and acoustic reproduction.

PV23 | **Apex Arts Film Production & Technology 1** 0.5sem

Students will become familiar with the techniques, theories, vocabulary, and practices of film production and technology. This course is designed to introduce students to the basic concepts of film production, including storyboarding, lighting, stage design, scene setting, and editing. Students will use both pre and post-production methods to create video and cinematic pieces that explore concepts in new medias: including social media, commercial design, and marketing. Students will develop a digital portfolio to share and display their work utilizing professional software standards.

PV24 | **Apex Arts Film Production & Technology 2** 0.5sem

This course builds upon the foundations of Film Production and Technology 1 by placing greater emphasis on film techniques and videography. Students will explore the history of film and cinematic arts and apply new concepts, vocabulary, and techniques to their projects. Students will work collaboratively and independently to develop original films and video that explore local and societal issues. Students will use digital software and equipment to explore film techniques with additional coursework on digital production, animation, scene editing, and sound overlay.

IB International Baccalaureate

Annapolis, Meade, & 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, Activity, 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. This unique international program has the capacity to open global doors and expand worldwide opportunity. Upon graduation, all IB students will be prepared to continue their university studies both in the United States and abroad. IB DP courses are only available to students enrolled in the IB DP Magnet Program.

High school IB magnet students can also elect to participate in the IB Career-Related Programme or the IB Course option. The IB Career-related Programme (CP) is designed for students interested in pursuing a career-related education in the 11 and 12th grades. It provides students with an excellent foundation to support their further studies, as well as ensure their preparedness for success in the workforce. The CP framework is composed of two or more IB Diploma Programme Courses and three CP Core components. The IB Course option, designed for students seeking a more flexible approach to IB Diploma Programme coursework, allows students to enroll in three or more IB DP courses.

Middle Years Programme *Grades 9–10*

All IB/MYP Students

Y17 | **IBMYP Global Community Citizenship** 0.5sem

IB MYP Global Community Citizenship is a course that supports the IB tenets by promoting intercultural understanding, global awareness, and civic responsibility. Through project-based learning, students explore local and global issues, reflect on their identities, and examine how cultural and technological influences shape society. The course emphasizes respectful dialogue, collaboration, and critical thinking. As part of this experience, students also launch their IB Personal Project, beginning their journey of independent inquiry and action.

IB MYP Language and Literature

IB MYP language and literature courses equip students with linguistic, analytical, and communicative skills that help to develop interdisciplinary understanding. Students develop skills in six domains—listening, speaking, reading, writing, viewing, and presenting—both independently and with others. MYP language and literature courses include a balanced study of genres and literary texts that provide a diverse and representative selection of cultures, races, gender identity and experiences. Students' interactions with texts generate moral, social, economic, political, cultural, and environmental insights. Through their studies, students learn how to form opinions, make decisions, and engage in ethical reasoning. Students' interactions with texts generate moral, social, economic, political, cultural, and environmental insights. Through their studies, students learn how to form opinions, make decisions, and engage in ethical reasoning. Teaching and learning is framed through the inquiry cycle providing students authentic and purposeful opportunities to engage in inquiry-based learning. The inquiry cycle stages include: tuning in, finding out, sorting out, going further, making conclusions and taking action. MYP students design and research projects with an international connection and exposure to the IB assessment criteria/rubrics.

IB MYP Individuals & Societies

The IB MYP individuals and societies subject group incorporates disciplines traditionally studied under humanities and social sciences. This subject group encourages learners to respect and understand the world around them and equips them with the necessary skills to inquire into historical, geographical, political, social, economic, and cultural factors that affect individuals, societies, and environments. The study of individuals and societies helps students to appreciate critically the diversity of human culture, attitudes, and beliefs. Courses in this subject group are important for helping students to recognize that both content and methodology can be debatable and controversial, and for practicing the tolerance of uncertainty. The IB's approach to this subject area includes a strong focus on inquiry and investigation. Students collect, describe, and analyze data; test hypotheses; and learn how to interpret increasingly complex information, including original source material. This focus on real-world examples, research and analysis is an essential aspect of the subject group. MYP students design and research projects with an international connection and exposure to the IB assessment criteria/rubrics.

IB MYP Sciences

With inquiry at the core, the IB MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation, and experimentation. The MYP sciences curriculum explores the connections between science and everyday life. As they investigate real examples of science applications, students discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment. Scientific inquiry fosters critical and creative thinking about research and design, as well as the identification of assumptions and alternative explanations. Teaching and learning is framed through the inquiry cycle providing students authentic and purposeful opportunities to engage in inquiry-based learning. The inquiry cycle stages include: tuning in, finding out, sorting out, going further, making conclusions and taking action. Students learn to appreciate and respect the ideas of others, gain good ethical-reasoning skills and further develop their sense of responsibility as members of local and global communities. MYP students design and research projects with an international connection and exposure to the IB assessment criteria/rubrics.

IB MYP Mathematics

The study of mathematics is a fundamental part of a balanced education. It promotes a powerful universal language, analytical reasoning and problem-solving skills that contribute to the development of logical, abstract and critical thinking. The MYP mathematics and extended mathematics courses promote both inquiry and application, helping students to develop problem-solving techniques that transcend the discipline and are useful in the world outside school. Mathematics in the MYP is tailored to the needs of students, seeking to intrigue and motivate them to want to learn its principles. Students should see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations. MYP students design and research projects with an international connection and exposure to the IB assessment criteria/rubrics.

IB MYP Language Acquisition

The ability to communicate in more than one language is essential to the concept of an international education that promotes intercultural understanding, and it is central to the IB's mission. The study of additional languages in the IB MYP provides students with the opportunity to develop insights into the features, processes, and craft of language and the concept of culture, and to realize that there are diverse ways of living, behaving, and viewing the world. Acquiring an additional language and exploring and reflecting on the cultural perspectives of our own and other communities: are central to developing critical thinking and international-mindedness; provide an intellectual framework to support personal development, cultural identity and conceptual understanding; greatly contribute to the holistic development of students and to the strengthening of lifelong learning skills; equip students with the necessary multiliteracy skills and attitudes to communicate successfully in various global contexts. IB MYP language acquisition classes are conducted in the target language. MYP students design and research projects with an international connection and exposure to the IB assessment criteria/rubrics.

Grades 11–12

IB Diploma Programme (IB DP)

I13 | **IB English 1—Language and Literature** [FY] 0.5/sem

I14 | **IB English 2—Language and Literature** [FY] 0.5/sem

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.

Prerequisite for IB English 2: *Placement in the IB Diploma Programme and successful completion of IB English 1*

| NCAA

I15 | **IB Theatre Arts 1** [FY] 0.5/sem

I16 | **IB Theatre Arts 2** [FY] 0.5/sem

These courses are 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 student to become aware of their own perspectives and biases and to learn to understand the values of others. Students explore: Theatre in the Making, Theatre in Performance and Theatre in the World. Students at HL are required to choose one from the following two options: Option A: Devising practice—allows students to develop and explore in depth the devising and actualization of a performance concept; Option B: Exploring practice—allows students to undertake a comparative study of theatre in advanced practice.

IB Diploma Programme (IB DP)

I19 | **IB World Religions** [FY] 0.5/sem

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.

| NCAA

I20 | **IB Economics 1** [FY] 0.5/sem

I40 | **IB Economics 2** [FY] 0.5/sem

IB Economics 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.

| NCAA

I23 | **IB History 1** [FY] 0.5/sem

I24 | **IB History 2** [FY] 0.5/sem

The IB History courses are world history courses based on a comparative, multi-perspective approach to history and focused around key historical concepts such as change, causation, and significance. They involve the study of a variety of types of history, including political, economic, social, and cultural, encouraging students to think historically and to develop historical skills. In this way, the courses involve a challenging and demanding critical exploration of the past. The DP history courses require students to study and compare examples from different regions of the world, helping to foster international mindedness.

| NCAA

I28 | **IB Psychology 1** [FY] 0.5/sem

I30 | **IB Psychology 2** [FY] 0.5/sem

In these courses, students examine the interaction of biological, cognitive, and socio-cultural influences on human behavior. Understanding how psychological knowledge is generated, developed, and applied enables students to achieve a greater understanding of themselves and appreciate the diversity of human behavior. The ethical concerns raised by the methodology and application of psychological research are key considerations in IB psychology. IB psychology takes a holistic approach that fosters intercultural understanding and respect. In the core of the IB psychology course, the biological level of analysis demonstrates what all humans share, whereas the cognitive and socio-cultural levels of analysis reveal the immense diversity of influences that produce human behavior and mental processes. Cultural diversity is explored, and students are encouraged to develop empathy for the feelings, needs, and lives of others within and outside their own culture.

IB Psychology 2 prepares students for the International Baccalaureate Psychology exams at either the Standard or Higher level. Course content includes developmental and social psychology, cognition and learning, and personality subject areas, which are approached from biological/physiological, behavioral, and humanistic points of view. This course may also include the study of research design and statistics and involve practical work in psychological research.

IB Diploma Programme (IB DP)

I33 | **IB Biology 1** [FY] 0.5/sem

I34 | **IB Biology 2** [FY] 0.5/sem

IB Biology courses prepare students to take the International Baccalaureate Biology exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Biology promotes understanding of the facts, principles, and concepts of underlying the biological field; critical analysis, evaluation, and generation of specific scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness

of the impact of biology and scientific advances in biology upon both society and issues of ethical, philosophical, and political importance. Course content varies but includes study of living organisms from the cellular level through functioning entities within the biosphere. Laboratory experimentation is an essential part of this course.
| NCAA

I35 | **IB Physics 1** [FY] 0.5/sem

I36 | **IB Physics 2** [FY] 0.5/sem

IB Physics courses prepare students to take the International Baccalaureate Physics exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Physics promotes understanding of the facts, patterns, and principles underlying the field of physics; critical analysis, prediction, and application of scientific information and hypothesis; improved ability to communicate scientific ideas; and an awareness of the impact of scientific advances in physics upon both society and issues of ethical, philosophical, and political importance. Course content varies but includes the study of the fundamental laws of nature and the interaction between concepts of matter, fields, waves, and energy. Laboratory experimentation is essential; calculus may be used in some courses.
| NCAA

I37 | **IB Chemistry 1** [FY] 0.5/sem

I38 | **IB Chemistry 2** [FY] 0.5/sem

IB Chemistry courses prepare students to take the International Baccalaureate Chemistry exams at either the Subsidiary or Higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Chemistry promotes understanding of the facts, patterns, and principles underlying the field of chemistry; critical analysis, evaluation, prediction, and generation of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of chemistry and scientific advances in chemistry upon both society and issues of ethical, philosophical, and political importance. Course content varies but includes the study of the materials of the environment, their properties, and their interaction. Laboratory experimentation is an essential part of these courses.
| NCAA

I39 | **IB Environmental Systems** [FY] 0.5/sem

Environmental systems and societies is an interdisciplinary course firmly grounded in both a scientific exploration of environmental systems in terms of their structure and function, and in the exploration of cultural, economic, ethical, political, and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world.
| NCAA

I68| **IB Sports, Exercise, and Health Science 1** [FY] 0.5/sem

I69| **IB Sports, Exercise, and Health Science 2** [FY] 0.5/sem

Students explore the concepts, theories, models, and techniques that underpin each subject area and through these develop their understanding of the scientific method. The SEHS course incorporates the disciplines of anatomy and physiology, biomechanics, psychology, and nutrition, which are studied in the context of sport, exercise, and health. A combination of content and experimental work provides the opportunity for students to acquire the knowledge and understanding necessary to apply scientific principles and analyze human performance. The SEHS course has strong international dimensions such as international sporting competition and the international bodies that regulate them. Ethical issues that exist within sporting competitions are considered. The comprehensive curriculum provides excellent preparation for university courses including those specifically related to Sport, Sports Science or Physical Education.

These courses incorporate the traditional disciplines of anatomy and physiology, biomechanics, psychology, and nutrition. Students carry out experimental investigations in lab and field settings. The courses offer a deeper understanding of the issues related to sports, exercise, and health in the 21st century and addresses the international dimension and ethics related to both the individual and global context. SEHS is good preparation for courses in higher or further education related to the sports fitness and leisure industries.

IB Diploma Programme (IB DP)

I93 | **Mathematics: Analysis & Approaches 1 (HL & SL)** [FY] 0.5/sem

The IB DP Mathematics: Analysis and Approaches course is an analytic methods course with an emphasis on calculus – appropriate for pure mathematicians, engineers, scientists, economists, and those with an interest in analytic methods. Students are encouraged to apply their mathematical knowledge to solve abstract problems as well as those set in a variety of meaningful contexts. Students should expect to develop insight into mathematical form and structure and should be intellectually equipped to appreciate the links between concepts in different topic areas. Topics include: Number and algebra, Functions, Geometry and trigonometry, Statistics and probability, Calculus, the Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics. This course begins students' preparation to take the IB Mathematics Analysis and Approaches exam at the Higher or Standard level.
| NCAA

I94/I95 | **Mathematics: Analysis & Approaches 2 (HL & SL)** [FY] 0.5/sem

This course continues and extends studies begun in Mathematics: Analysis and Approaches 1.
| NCAA

I98 | **Mathematics: Analysis & Approaches 1 (HL & SL) (Daily)** 1.0sem

The IB DP Mathematics: Analysis and Approaches course is an analytic methods course with an emphasis on calculus – appropriate for pure mathematicians, engineers, scientists, economists, and those with an interest in analytic methods. Students are encouraged to apply their mathematical knowledge to solve abstract problems as well as those set in a variety of meaningful contexts. Students should expect to develop insight into mathematical form and structure and should be intellectually equipped to appreciate the links between concepts in different topic areas. Topics include: Number and algebra, Functions, Geometry and trigonometry, Statistics and probability, Calculus, the Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics. This course begins students' preparation to take the IB Mathematics Analysis and Approaches exam at the Higher or Standard level.
| NCAA

I90 | **Mathematics: Applications & Interpretation 1 (HL & SL)** [FY] 0.5/sem

The IB DP Mathematics: Applications and Interpretation course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. To give this understanding a firm base, this course includes topics that are traditionally part of a pre-university mathematics course such as Calculus and Statistics. Students are encouraged to solve real-world problems, construct and communicate this mathematically and interpret the conclusions or generalizations. Students should expect to develop strong technology skills and will be intellectually equipped to appreciate the links between the theoretical and the practical concepts in mathematics. Topics include: Number and algebra, Functions, Geometry, and trigonometry, Statistics and probability, Calculus, the Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics. This course begins students' preparation to take the IB Mathematics Applications and Interpretation exam at the Higher or Standard level.
| NCAA

I91/I92 | **Mathematics: Applications & Interpretation 2 (HL & SL)** [FY] 0.5/sem

This course continues and extends studies begun in Mathematics: Applications and Interpretation 1.
| NCAA

IB Diploma Programme (IB DP)

I49 | **IB DP Chinese 1** [FY] 0.5/sem

I50 | **IB DP Chinese 2** [FY] 0.5/sem

IB DP Chinese are additional language-learning courses designed for students who studied Chinese and have successfully completed level 3 or higher, and who are admitted in the IB Diploma Programme. It may be studied at either Standard Level (SL). The main focus is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.
| NCAA

I53 | **IB DP French 1** [FY] 0.5/sem

I54 | **IB DP French 2** [FY] 0.5/sem

IB DP French are additional language-learning courses designed for students who studied French and have successfully completed level 3 or higher, and who are admitted in the IB Diploma Programme. It may be studied at either Standard Level (SL) or Higher Level (HL). The main focus is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.
| NCAA

I57 | **IB DP Spanish 1** [FY] 0.5/sem

I58 | **IB DP Spanish 2** [FY] 0.5/sem

IB DP Spanish are additional language-learning courses designed for students who studied Spanish and have successfully completed level 3 or higher, and who are admitted in the IB Diploma Programme. It may be studied at either Standard Level (SL) or Higher Level (HL). The main focus is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.
| NCAA

I61 | **IB DP Italian 1** [FY] 0.5/sem

I62 | **IB DP Italian 2** [FY] 0.5/sem

IB DP Language Italian are additional language-learning courses designed for students who studied Italian and have successfully completed level 3 or higher, and who are admitted in the IB Diploma Programme. It may be studied at either Standard Level (SL) or Higher Level (HL). The main focus is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.
| NCAA

Arts & Electives

I71 | **IB Music 1** [FY] 0.5/sem

I72 | **IB Music 2** [FY] 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.

I73 | **IB Dance 1** [FY] 0.5/sem

I74 | **IB Dance 2** [FY] 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.

I75	**IB Art 1** [FY] 0.5/sem
I76	**IB Art 2** [FY] 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.

I80	**IB Film 1** [FY] 0.5/sem
I81	**IB Film 2** [FY] 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.

I82	**IB DP Business Management 1** [FY] 0.5/sem
I83	**IB DP Business Management 2** [FY] 0.5/sem

The IB Diploma Programme Business Management courses are designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss, and evaluate business activities at local, national, and international levels. The courses cover a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. Emphasis is placed on strategic decision-making and the operational business functions of human resource management, finance and accounts, marketing and operations management. Links between the topics are central to the course, as this integration promotes a holistic overview of business management. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation and strategy), the Business Management courses allow students to develop their understanding of interdisciplinary concepts from a business management perspective.

I63	**IB Computer Science 1** [FY] 0.5/sem
I64	**IB Computer Science 2** [FY] 0.5/sem

The IB DP computer science requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course students will identify a problem or unanswered question, design, prototype and test a proposed solution, liaise with clients to evaluate the success of the proposed solution, and make recommendations for future developments. IB DP Computer Science will provide opportunities for study and creativity within a global context that will stimulate and challenge students to develop the skills necessary for independent and lifelong learning. Students will gain an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science, and an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

This course draws on a wide spectrum of knowledge and empowers innovation, exploration, and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures and society, and the ethical issues involved. Core topics will include System fundamentals, Computer organization, Networks, Computational thinking, problem-solving and programming, Abstract data structures and Resource management.

It incorporates an understanding of the fundamental concepts of computational thinking and knowledge of how computers and other digital devices operate. Students will develop computational solutions, identify a problem, design, prototype and test a proposed solution, liaise with clients, and make recommendations for future developments.

I85	**IB DP Design Technology 1** [FY] 0.5/sem
I86	**IB DP Design Technology 2** [FY] 0.5/sem

The IB Diploma Programme Design Technology courses aim to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world. They focus on analysis, design development, synthesis, and evaluation. The creative tension between theory and practice is what characterizes design technology within the Diploma Programme sciences group. Inquiry and problem-solving are at the heart of the subject. IB Diploma Programme Design Technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. In these courses a solution can be defined as a model, prototype, product, or system that students have developed independently. IB Diploma Programme Design Technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework. A well-planned design program enables students to develop not only practical skills but also strategies for creative and critical thinking.

IB Core Requirement

I25	**IB Theory of Knowledge 1** 0.5sem
I26	**IB Theory of Knowledge 2** 0.5sem

Obligatory for every IB Diploma Programme candidate, Theory of Knowledge (TOK) 1 and 2 aim to stimulate critical self-reflection of students' knowledge and experiences. Course content generates questions regarding the bases of knowledge and their verification in the disciplines of mathematics, natural sciences, human sciences, and history, with an awareness of moral, political, and aesthetic judgments and biases. Students learn to appreciate the strengths and limitations of various kinds of knowledge; to related studied subjects to one another, general knowledge, and living experiences; to formulate rational arguments; and to evaluate the role of language in knowledge and to convey knowledge.

I97	**Honors IB Research** (Fall) [FY] 0.5/sem
I96	**Honors IB Research** (Spring) [FY] 0.5/sem

IB Advanced Independent Research and Creative Achievement is an Advanced Course for Junior 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 4,000-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)
Prerequisite(s): *Placement in IB Diploma Programme.*

The IB Career-related Programme (CP)

The IB Career-related Programme (CP) is designed for students interested in pursuing a career-related education in the 11 and 12th grades. It provides students with an excellent foundation to support their further studies, as well as ensure their preparedness for success in the workforce. The CP framework is composed of two or more IB Diploma Programme Courses and three CP Core components: Personal and Professional skills; service learning; and the reflective project.

See your school-based IB DP/CP Coordinator for more information on the available career study pathways.

I65 | **Personal and Professional Skills 1** 0.5sem

This course develops student attitudes, skills, and strategies that can be applied to personal and professional experiences now and in the future that will then transcend to the workplace and a range of situations. There are five themes that comprise personal and professional skills:

1. Personal development
2. Intercultural understanding
3. Effective communication
4. Thinking processes
5. Applied ethics.

I66| **Personal and Professional Skills 2** 0.5sem

This course builds up the level 1 course and supports students in the successful completion of their Career-related pathway and the IB CP language development portfolio, reflective project, and service-learning requirements.

STEM Science Technology Engineering & Math

North County and South River High Schools

The STEM Magnet program is an educational choice for academically eligible and highly motivated students interested exploring the importance of science, technology, engineering, and mathematics, and computer science throughout all aspects of the natural and manufactured world. Through a project/problem-based environment integrated with advanced STEM coursework, cutting-edge technology, STEM job shadow experiences, and research internships, STEM students will work collaboratively to solve real-world local and global problems with their peers, teachers, mentors, community partners, and STEM professionals.

The STEM Magnet Program offers five pathways that students may pursue: Earth & Space Systems, Green Technologies, Nanotechnology, and Materials Science, Computer Science and Applied Mathematics, and Engineering. STEM Pathways include Anne Arundel Community College courses, 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 STEM workforce directly or continue their education along their chosen STEM pathway at a two or four-year college or university. STEM courses are only available to students enrolled in the STEM Magnet Program.

STEM Core Courses

X44 | **Project-Based Learning 1** 0.5/year

Students will work with STEM school, 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 introduce students to the main philosophical pillars of the STEM program: Problem/Project based learning (open-ended projects with real-world connection), Socratic Dialogue (strategic way of communication better to understand what others are thinking), data collection and analysis, collaborative teamwork, and presentation skills.

X54 | **Project-Based Learning 2 (STEM)** 0.5sem

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.

Prerequisite(s): *Successful completion of Global Community Citizenship through Project-Based Learning (STEM) (PBL 1)*

X64 | **Honors Project-Based Learning 3 (STEM)** 0.5sem

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. This course is also in the BMAH program.

Prerequisite(s): *Successful completion of Global Community Citizenship through Project-Based Learning (STEM) (PBL 1) and PBL 2*

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. The course B84, Honors STEM Policy, is also in the BMAH program.

| NCAA

X12 | **AP Capstone: Seminar** [FY] 0.5/sem (Elective)

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. AP Seminar provides sustained practice of investigating issues from multiple perspectives and cultivates student writing abilities so they can craft, communicate, and defend evidence-based arguments. Students are empowered to collect and analyze information with accuracy and precision and are assessed through a team project and presentation, an individual written essay and presentation, and a written exam.

X15 | **AP Capstone: Research** [FY] 0.5/sem

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 investigation of topics from multiple perspectives.

C10 | **Research/Data Analysis (STEM)** [FY] 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 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 STEMists, support from a STEM teacher, and time to carry out an experimental research project in a supportive setting.

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

C03 | **Honors System Science A (STEM)** [FY] 0.75/sem

C06 | **Honors System Science B (STEM)** [FY] 0.75/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.

| NCAA

R04 | **AP Computer Science Principles** [FY] 0.5/sem

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. This course introduces students to a wide range of computational topics in 7 categories: Algorithms, Abstraction, Data & Information, Programming, Global Impact of Digital Technology, Creativity, & The Internet. 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 yet manageable curriculum that aims to broaden participation in computer science. This course is intended to prepare students for the AP Computer Science Principles Exam. This course satisfies the Basic Technology graduation requirement if not used for Computer and Information Sciences Completer.

Prerequisite(s): *Algebra 1 is recommended.*

M267| **Advanced Engineering Design (IED)** [FY] 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.

Pathway Courses

Earth & Space Systems Pathway

C668 | **AP Environmental Science** [FY] 0.5/sem

See the *Science* section for course description.

M03 | **Honors Aeronautics (STEM)** [FY] 0.5/sem

This is a Pathway 1 course in the 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, textbook 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, 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 complete flight hours at a licensed training facility 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.*

C37 | **Earth/Space Missions** [FY] 0.5/sem

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 activities 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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Environmental Science or Aeronautics 1 & 2 (SRHS only) AP Computer Science or AP Statistics (NCHS only).*

C80 | **Honors Astronomy (STEM)** 0.5sem

The Methods in Astronomy module will focus on Earth and Planetary Systems as a science, first discussing the history of the field as a study of the scientific process and then moving to the tools and methods available to modern astronomers. This area will also address notions of scale, celestial mechanics, stellar formation and lifecycle, galactic structure, and cosmology. In this area, scientific computing as a tool of any modern scientist or engineer will be introduced and edified. The Planetary Science module will focus on how the tools and ideas developed in the previous module enable modern astronomers to make new discoveries in our solar system and in other stellar systems. This module will enable students to critically think about the energetics and dynamics of celestial bodies as they relate to how internal, surface, and atmospheric processes shape bodies in our solar system and in other systems. Furthermore, students will investigate the scientific aims of modern NASA/ESA missions.

Green Technologies Pathway

C668 | **AP Environmental Science** [FY] 0.5/sem

See the *Science* section for course description.

C2751 | **Environment/Society 1 (STEM)** 0.5sem

C2752 | **Environment/Society 2 (STEM)** 0.5 sem

Magnet program in the Green Technologies Pathway at the NCHS site only. In this interdisciplinary course, students will examine the influence of media on shaping the individual's understanding and response to environmental issues. During the second semester students will apply the concepts, skills, and experiences acquired during the first semester to a multimedia presentation delivered to a panel of their peers and community stakeholders. This final multimedia presentation will be designed to be used by a community and/or regional stakeholder. In this advanced course, students participate in research, analysis, prototyping, and written reports on par with local college level requirements. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Environmental Science*

Nanotechnology & Materials Science Pathway

R20 | **AP Computer Science A** [FY] 0.5/sem

See the *Career and Technical Education* section for course description.

Select 1 of the following courses.

C568 | **AP Physics 1** [FY] 0.5/sem

C578 | **AP Physics 2** [FY] 0.5/sem

C49 | **AP Chemistry** [FY] 0.5/sem

See the *Science* section for course description.

C60 | **Materials Science (STEM)** 0.5sem

Materials Science is a revolutionary science that pushes innovation and industry forward through the study of how materials (such as ceramics and polymers) work and how advances in technology will continue to improve these materials. Students in this course will use hands-on exploration and authentic challenges to study Chemistry, Physics, Engineering, Biology, and Medicine as these subjects relate to Materials Science. This course is paired with STEM Nanotechnology offered in the opposite semester. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Computer Science*

C61 | **Nanotech Exploration (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 one 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 relativity 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 to round out the Pathway 2 experience. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Computer Science or AP Statistics (NCHS only)*

Computer Science & Applied Mathematics Pathway

All students must take both semesters of:

R20 | **AP Computer Science A** [FY] 0.5/sem

This course serves as a rigorous introduction to object-oriented programming using the Java programming language. Topics covered include input/output, conditionals, loops, functions/methods, basic data structures, and advanced object-oriented programming concepts. The course is intended to prepare students for the AP Computer Science A Exam.. Prerequisite(s): Algebra 2 (B or better) or concurrent enrollment in Algebra 2 Recommended: Honors Computer Science Programming—Java or AP Computer Science Principles

All students must take two of the following four classes:

R84 | **Honors Computer Science Programming—Python** 0.5sem

Learn computer programming in Python, a versatile, fun and easy to learn coding language that is great for first-time learners. Learn the fundamentals of object-oriented software development including variables, data types, conditionals, loops and more. Students will apply Python skills to tackle practical data science challenges.. Proficiency in Python can lead to career opportunities in a variety of fields. No prior programming experience is necessary.

M05 | **Mathematics/Science Modeling (STEM)** 0.5sem

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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Computer Science.*

R01 | **Parallel Computing (STEM)** 0.5sem

This 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 receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Computer Science.*

R847 | **Honors Interactive Media—3D/Augmented Reality** 0.5sem

Explore, test, create, and identify game design principles, reciting common choices, styles, and/or aesthetics (e.g. visual, audial, interactive, and narrative) through learning and innovation, creativity and innovation including but not limited to thinking critically and problem solving and augmented reality through computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatoensory, and olfactory, to create and interact with the real-world.

Engineering Pathway—North County Only

M257 | **Advanced Principles of Engineering** [FY] 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.

See CTE Institutes Section of the Program of Study for more information on the following courses:

CAD Academy Course
CAT-North courses in:

- Engineering Explorations in Computer Aided Design (CAD)
- Electricity

CAT-North Level II Courses in

- Drafting and Design Technology
- Electricity

M12 | **Design & Innovation Engineering Capstone (STEM)** [FY] 0.5/sem

This capstone course immerses the student in the real-world challenges faced by today's engineers relevant to current themes in the workplace (ie. The Grand Challenges sponsored by the National Academies of Engineering). Students will do the deep dive to explore and design a revolutionary product, scheme, and/or process/product to enhance everyday lives. Whether it be a common tool or a theoretical part that will enhance space exploration or environmental cognizance, the student will design and build an artifact along with a full analysis of its function and precision in application. Advanced Weighting.

Prerequisite(s): *Precision Machining I and either AP Computer Science or AP Physics*

PLTW Engineering Pathway—South River Only

M257 | **Advanced Principles of Engineering** [FY] 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.

See CTE Institutes Section of the Program of Study for more information on the following courses:

CAD Academy Course
CAT-North courses in:

- Engineering Explorations in Computer Aided Design (CAD)
- Electricity

CAT-North Level II Courses in

- Drafting and Design Technology
- Electricity

M277| **Advanced Digital Electronics** [FY] 0.5/sem

This course is the third course of a pre-engineering completer 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.

Prerequisite(s): *Honors Principles of Engineering (POE) and Honors Engineering Design (IED).*

M30 | **Honors Aerospace Engineering** [FY] 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 process 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. Students have the option to take this course or Honors Civil Engineering & Architecture during their junior year.

Prerequisite(s): *Honors Principles of Engineering (POE) and Honors Engineering Design (IED).*

Recommended: *Algebra 2*

M49 | **Honors Civil Engineering & Architecture** [FY] 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. Students have the option to take this course or Honors Aerospace Engineering during their junior year. Offered to STEM students at South River only.

Prerequisite(s): *Honors Principles of Engineering (POE) and Honors Engineering Design (IED).*

M447 | **Advanced Engineering Design (EDD) 2** [FY] 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.

Prerequisite(s): *Honors Principles of Engineering (POE), Honors Engineering Design (IED) and Honors Digital Electronics.*

R20 | **AP Computer Science A** (South River Only) [FY] 0.5/sem

See the *Career and Technical Education* section for course description.

STEM Electives

B27 | **Honors Social Innovation & Change (STEM)** 0.5sem

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.

Prerequisite(s): *Honors Biology and either Honors/AP US Government or Honors/AP US History*

R847 | **Honors Interactive Media—3D/Augmented Reality** 0.5/sem

Explore, test, create, and identify game design principles, reciting common choices, styles, and/or aesthetics (e.g. visual, audial, interactive, and narrative) through learning and innovation, creativity and innovation including but not limited to thinking critically and problem solving and augmented reality through computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatoensory, and olfactory, to create and interact with the real-world.

M245 | **Green Architecture/Urban Planning** [FY] 0.5/sem

Students will explore traditional architecture as it relates to green and sustainable practices, urban development, and urban rehabilitation. In the second semester of this capstone course, students will apply the concepts, skills, and experiences acquired during the first semester to draw, create, and construct a scale model of an original design that helps to address an environmental problem of their choice. Students will present their design to a panel of their peers and STEM community stakeholders. South River High School students only. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Prerequisite(s): *AP Environmental Science and STEM Environment & Society.*

M65 | **Honors Introduction to Unmanned Aerial Systems (STEM)** 0.5sem

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.

Prerequisite(s): *Honors Systems Science A and B and Aeronautics I & II*

M75 | **Honors Unmanned Aerial Systems (STEM)** [FY] 0.5/sem

This course is a 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/Acro, 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.

Prerequisite(s): *Honors Systems Science A and B and Aeronautics I & II*

M16 | **Introduction to Robotics Engineering** 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.

X165 | **STEM Modern Biotechnologies** [FY] 0.5/sem

STEM Modern Biotechnologies is an Advanced Course for students participating in the Science Technology Engineering Math (STEM) Magnet program and who have successfully completed course offerings in a STEM-related subject and who are committed to completing research and coursework that results in a project or product that could be published, eligible for a patent, presented at a national conference, and/or entered in a nationally or internationally recognized competition. Students must submit a proposal in an area of research and/or product development related to the key areas of modern biotechnologies, using biological molecules, particles, cells, organisms, and/or processes to improve life in the areas of food, fuels or medicine.

STEM BMAH BioMedical Allied Health

Glen Burnie High School

The BMAH Magnet program is an educational choice for highly motivated and academically eligible students who 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. BMAH Pathways include Anne Arundel Community College courses, allowing students to gain college credit towards a degree, 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.

BMAH Core Courses

X14 | **Medical Rounds (BMAH)** 0.5sem

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

X54 | **Project-Based Learning 2 Medical** 0.5sem

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.

Prerequisite(s): *Successful completion of Global Community Citizenship through Project-Based Learning (STEM) (PBL 1)*

X64 | **Honors Project-Based Learning 3 (STEM)** 0.5sem

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. This course is also in the BMAH program.

Prerequisite(s): *Successful completion of PBL 1 and PBL 2*

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. The course B84, Honors STEM Policy, is also in the STEM program.

| NCAA

C20 | **BMAH Capstone Research** [FY] 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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

M35 | **Honors Principles of Biomedical Sciences (PBS)** [FY] 0.5/sem

This course introduces the biomedical sciences through exciting hands on projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. 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.

Prerequisite(s): *Honors Principles of Engineering (POE).*

G19 | **Foundations of 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.

G45 | **Studio 1 2D** 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.

Pathway Courses

Aging and Wellness Pathway

C15 | **BMAH Public/Intern Health 1** 0.5sem

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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

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.

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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement..

Public & International Health Pathway

C15 | **BMAH Public/Intern Health 1** 0.5sem

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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

C16 | **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. This course receives Advanced Weighting (the same as AP courses) because it has a prerequisite that is Advanced Placement.

Health Information Technologies Pathway

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.

R64 | **Honors Database Management (BMAH)** 0.5sem

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.

PLTW BioEngineering Pathway

M27 | **Advanced Digital Electronics** [FY] 0.5/sem

This course is the third course of a pre-engineering completer 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.

Prerequisite(s): *Honors Principles of Engineering (POE) and Honors Engineering Design (IED).*

M29 | **Advanced Environmental Sustainability** [FY] 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.

Prerequisite(s): *Honors Principles of Engineering (POE) and Honors Engineering Design (IED).*

M44 | **Advanced Engineering Design & Development (EDD)** [FY] 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.

Prerequisite(s): *Honors Principles of Engineering (POE), Honors Engineering Design (IED), and Honors Digital Electronics.*

PLTW Biomedical Science Pathway

M36 | **Honors Human Body Systems (HBS)** 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.

Prerequisite(s): *Honors Principles of Biomedical Sciences (PBS).*

M37 | **Honors Medical Interventions (MI)** [FY] 0.5/sem

This course allows students to explore how diseases are prevented, diagnosed, and treated by following the lives of a fictitious family. Through engaging case studies, students examine interventions ranging from basic diagnostic tests to complex treatments involving immunology, genetics, pharmacology, surgery, medical devices, and cancer care. The course emphasizes prevention, lifestyle choices, and the role of scientific thinking and engineering design, while highlighting the past, present, and future of biomedical science.

Prerequisite(s): *Honors Principles of Biomedical Sciences (PBS).*

M39 | **Biomedical Innovations (BI)** [FY] 0.5/sem

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution.

Prerequisite(s): *Honors Principles of Biomedical Sciences (PBS), Honors Human Body Systems (HBS), Honors Medical Interventions (MI).*

Signature Programs

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 all students and expands opportunities that connect to the workplace. Each of the comprehensive high schools in Anne Arundel County offers a unique Signature Program providing enrichment to the educational experience. These programs align with AACPS Strategic Plan to eliminate the achievement and opportunity gaps by providing all students with access to rigorous coursework with immersive experiences.

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 Program 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 traditional high school transcript.

All Signature Programs

In each Signature Pathway, students take two full years of Signature Explorations classes. The Explorations 1 classes are semester-long offerings at all schools except Meade High School and Severna Park High School, where students enroll in a full year of Explorations 1 coursework. The second level Explorations course is an Honors Signature Capstone Course. This course allows students to explore a long-range project related to Signature themes. Each Signature program also includes an AACC pathway where students can earn 18 college credits while in high school.

AACC Courses

College Classes in Anne Arundel County Public Schools

The Signature Program, in partnership with Anne Arundel Community College (AACC), currently offers the opportunity for students to enroll in AACC college courses taught by AACC college professors during the regular school day in many of our high schools. These courses are dual credit, providing both credit towards a student's high school diploma and transcripted college credits. Students completing these courses may earn an industry certification, embark on a pathway to a post- secondary degree, or get a jumpstart on college by participating in a career cluster. All high schools will have a Signature-embedded college pathway in the future.

Student Success

Schools may choose to offer ACA 100 Student Success as part of their Signature AACC Pathways. This 8-week, 1-semester course provides students with the opportunity to engage in coursework designed to prepare them for post-secondary experiences. While this course does not count toward the pathway, it does help prepare students for the experience.

ACA100 Student Success (AACC credit only)	1 credit

Explore college academic support services and faculty expectations. Examine study skills, note taking, strengthening memory and concentration, and time management. Assess your own learning style, choose a career path, set goals, and develop an educational plan. Transition to college and develop tools to ensure your academic success.

Annapolis High School

The Change Engineering Signature Program redefines the classroom and awakens the intellectual curiosity of young leaders by empowering them to transform their world. We teach them the positive benefits of change and provide them the leadership and a toolkit to methodically identify, analyze, plan, implement, and create change.

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

The Change Engineering Exploration 1 course provides an opportunity for students to define, recognize, and manage change while fostering changemaking potential with impact by analyzing the structure for creating change. In Ex1, students foster community membership through leadership and stewardship. Available at Annapolis High School Only.

X07010/20 | **Honors Change Engineering Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Annapolis High School Only.

AACC Courses

Junior Year | Fall Semester | *Annapolis HS*

JEN002 | **Honors Entrepreneurship** (Proficiency Credit) 0.5sem

Discover and practice the components of entrepreneurship, idea generation, creative thinking, and opportunity recognition. Experiment using entrepreneurial methods and evaluate potential business ideas. Compare and analyze various strategies entrepreneurs have used to start and grow their businesses.

| Dual (AACC Course #ESI103 | 3 credits)

Junior Year | Spring Semester | *Annapolis HS*

JEN003 | **Entrepreneurship: Sales & Marketing for Small Business** 0.5sem

This course will emphasize tools and skills that small business owners need to market their business successfully on a small scale and small budget. The salesmanship portion of the course will focus equally on the effectiveness of a good sales presentation and the importance of good customer service after the sale to ensure future sales. The intended audience is who plan to own or manage small businesses and need to develop more skills in marketing and sales. Skills to be mastered include preparing a marketing plan for a small business, developing a realistic marketing budget, planning the sales presentation, and providing a training manual for sales personnel to be hired in the future.

| Dual (AACC Course #ESI104 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus*

JBE019 | **Small Business Management** 0.5sem

This course explores the principles and practices involved in and necessary for owning and operating a small business. Areas of study include assessment of qualification for business ownership, market determination, site locations, capital and credit requirements, risk management and insurance, record-keeping, and personnel management. The purpose of this course is to provide information to prospective and new small business operators.

| Dual (AACC Course #BPA120 | 3 credits)

JBE018 | **Financial Accounting** 1.0sem

In this course, students will learn the principles of financial accounting for the corporate entity. Study accrual-based accounting and the accounting cycle. Analyze and record financial transactions; prepare financial statements; and learn to account for receivables, inventories, fixed assets, liabilities, and shareholders' equity.

| Dual (AACC Course #BPA201 | 4 credits)

OR

JBE018 | **Foundations of Accounting** 1.0sem

In this course, students will learn principles of financial and managerial accounting from a user approach. Develop basic skills in understanding and interpreting financial statements. Apply financial and managerial accounting concepts to managing businesses.

| Dual (AACC Course #BPA200 | 4 credits)

continued

Annapolis High School, continued...

Senior Year | Spring Semester | *AACC Arnold Campus*

JLG002 | **Business Law 1** 0.5sem

In this course, students will learn legal consequences in the launch and operation of a business. Examine practical ways to minimize liability in areas such as business organization and management, obligations created by contracts and torts, and relationships between employers and employees and between creditors and debtors. Study government regulation and property interests, and intellectual property law.

| Dual (AACC Course #LGS253 | 3 credits)

JEN004 | **Entrepreneurship: New Venture Planning** 0.5sem

In this course, students will earn the process of business planning in this capstone course and work on a semester-long comprehensive business plan for a new venture or existing business. Learn from guest speakers and individual meetings with the instructor with a focus on applied learning. Explore the use of computer software to aid in planning and managing a new venture. Designed for individuals interested in starting a new venture, acquiring an existing business, or working in industries that serve entrepreneurs and managers. Lab fees reduced for this course.

| Dual (AACC Course #SI270 | 3 credits)

Arundel High School

Community Development is a way of working with communities and importantly a way of looking at all the careers involved in making a society successful and sustainable. Global Citizenship encourages people to consider their individual impact on the wider community including participation in political, economic, social, cultural, and environmental conditions in which they live.

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

In the semester-driven 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.

X07011/21 | **Honors Community Development/Global Citizenship Explorations 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Arundel High School only.

AACC Courses

Junior Year | Fall Semester | *Arundel HS*

JEN002 | **Intro to Entrepreneurship** 0.5sem

Discover and practice the components of entrepreneurship, idea generation, creative thinking, and opportunity recognition. Experiment using entrepreneurial methods and evaluate potential business ideas. Compare and analyze various strategies entrepreneurs have used to start and grow their businesses.

| Dual (AACC Course ESI103 | 3 credits)

Junior Year | Spring Semester | *Arundel HS*

JBE007 | **Introduction to Business** 0.5sem

Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies.

| Dual (AACC Course BPA111 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus*

JBE013 | **Principles of Marketing** (online, asynchronous) 0.5sem

An introduction to the principles governing the distribution of goods and services at various levels of distribution. The management viewpoint is stressed, and emphasis is on making decisions regarding product, price, promotion, and place.

| Dual (AACC Course BPA125 | 3 credits)

JBE019 | **Small Business Management** 0.5sem

Examine the principles and practices involved in managing a small business. Topics include business planning, legal issues and forms of small businesses, financial management, human resources management, marketing, customer relationship management, family businesses and e-commerce. Provides information to current or prospective managers of existing small businesses.

|Dual (AACC Course BPA120 | 3 credits)

JQ6100 | **Principles of Management** 0.5sem

Explore the managerial functions of planning, leading, organizing, and controlling, and the management process. Study, through application, topics to include environmental influences, organization design, motivation, ethics, communication and leadership.

| Dual (AACC Course BPA142 | 3 credits)

Senior Year | Spring Semester | *AACC Arnold Campus*

JBE014 | **Digital Marketing and Analytics** 0.5sem

Learn the core concepts of an eMarketing campaign. Explore email marketing, online advertising, social media, viral marketing, website copywriting and design, and other electronic tools used in supporting a traditional marketing campaign.

| Dual (AACC Course BPA127 | 3 credits)

JBE008 | **Business Communication** 0.5sem

Examine all aspects of business communications. Focus on written reports and proposals, oral presentations including interviewing skills and persuasive proposals as well as electronic communications including email, social media, and business research on the Internet.

| Dual (AACC Course BPA162 | 3 credits)

Additional AACC Course Considerations

JBE017 | **Global Business** 3 credits

Explore the factors affecting the success or failure of businesses operating abroad. Analyze general theories of trade and economic development, specific organizations and monetary systems, the foreign forces impacting business and management applications.

| Dual (AACC Course BPA119 | 3 credits)

JBE018 | **Financial Accounting** 1.0sem

In this course, students will learn the principles of financial accounting for the corporate entity. Study accrual-based accounting and the accounting cycle. Analyze and record financial transactions; prepare financial statements; and learn to account for receivables, inventories, fixed assets, liabilities, and shareholders' equity.

| Dual (AACC Course BPA201 | 3 credits)

OR

JBE018 | **Foundations of Accounting** 1.0sem

In this course, students will learn principles of financial and managerial accounting from a user approach. Develop basic skills in understanding and interpreting financial statements. Apply financial and managerial accounting concepts to managing businesses.

| Dual (AACC Course BPA200 | 3 credits)

Broadneck High School

Broadneck High School Signature Program

Environmental Literacy

Environmental Literacy embraces the idea that everything we do affects the environment, and the environment affects everything we do. In our program, students are taught to examine environmental issues not only in science, but also in subjects such as economics, health, and government through field experiences, guest speakers, and student led classroom activities.

X06--2 | **Environmental Literacy Exploration 1** 0.5sem

Through the Environmental Literacy Explorations course, students survey environmental issues related to sustainability and the connectedness of environmental awareness to personal and career opportunities. Using project-based learning, students will investigate topics such as biodiversity, environmental economics, pollution/restoration, and advocacy. Available at Broadneck High School only.

X07012/22 | **Honors Environmental Literacy Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Broadneck High School only.

AACC Courses

Junior Year | Spring Semester | *Broadneck HS*

JSC002 | **Restoration Ecology** 0.5sem

Learn basic techniques used to repair, restore, and create ecosystems. Emphasis is placed on the diverse ecosystems of Maryland. Investigate how water quality is improved through established forest and meadow habitats, tidal and non-tidal wetlands, underwater grass meadows, and dune systems as well as through the construction of rain gardens and vegetated storm water treatment systems. This course does not satisfy a lab science requirement.

| Dual (AACC Course BIO215 | 3 credits)

JSC006 | **Introduction to Drone Technology** 0.5sem

Learn information technology concepts and skills that are fundamental to social, personal, business, and academic environments through the study of Drone Technology. Learn about the command and control networks, hardware, software, security, privacy, ethics, and emerging technologies as they apply to the workforce demands for small uncrewed aircraft systems (sUAS). Learn basic drone flying skills, the rules for recreational drone flying and the required knowledge to become a Federal Aviation Administration (FAA), Part 107 Certified Drone Pilot.

| Dual (AACC Course #UAS111 | 3 credits)

ACA100 | **Student Success** (AACC credit only) 1 credit

Explore college academic support services and faculty expectations. Examine study skills, note taking, strengthening memory and concentration, and time management. Assess your own learning style, choose a career path, set goals, and develop an educational plan. Transition to college and develop tools to ensure your academic success.

Senior Year | Fall Semester | *AACC Arnold Campus*

JGE002 | **Introduction to Geographic Information Systems** 0.5sem

Utilize geospatial technology and apply foundational concepts in Geographic Information Systems (GIS) to collect, store, analyze, and display natural and social science data. Demonstrate knowledge and application of fundamental cartographic principals and analytical methods using industry standard hardware and software.

| Dual (AACC Course GEO240 | 3 credits)

Senior Year | Spring Semester | *AACC Arnold Campus*

JSC004 | **General Botany** 0.5sem

Gain an introduction to members of the plant kingdom and their closest relatives. Learn the unique life strategies of plants that are the basis for their importance to humans and their role in shaping global ecology. Through an examination of plant form and function, students will learn how and why plant life defines the biological potential of both terrestrial and aquatic ecosystems.

Prerequisite: *eligibility for ENG 101/101A and eligibility for any gen ed math or a score of 27 or better on the Arithmetic Placement Test or a B or better in MAT 005)*

| Dual (AACC Course #BIO103 | 4 credits)

continued

Broadneck High School, continued...

Senior Year | Either Semester | *AACC Arnold Campus*

In addition, students must successfully complete **one** course each semester at AACC from the list below:

JSC003 | **Foundations of Biology: Molecules & Cells** 1.0sem

Study the basic biological principles common to living organisms and insights into the scientific methods used to determine those principles. Topics include biological molecules, cell structure and metabolism, biological organization, homeostasis, reproduction and development, and heredity and evolution.

Prerequisite: *Eligibility for ENG 101/ENG 101A and either eligibility for any general education math or a score of 27 or better on the Arithmetic Placement Test, or a "B" or better in MAT 005. This is recommended for students who did not earn a 4 or better on the AP Biology Assessment.*

| Dual (AACC Course BIO101 | 3 credits)

OR

JSC007 | **Foundations of Biology: Ecology & Evolution** 1.0sem

Investigate the major evolutionary and ecological processes that operate in the natural world. Explore the diversity of life forms on Earth and human impacts on that diversity. Collect, quantify, interpret and present empirical data in order to gain a foundation in the scientific and communication skills used to develop scientific knowledge.

| Dual (AACC Course BIO104 | 3 credits)

OR

JSC005 | **Environmental Science** 0.5sem

Investigate major issues in contemporary environmental science with special emphasis on scientific reasoning and the skills needed to resolve contemporary problems. Perform field and laboratory exercises focused on ecosystem dynamics, habitat assessment, pollution, resource management and environmental restoration. Students must attend occasional scheduled field trips.

| Dual (AACC Course BIO107 | 3 credits)

OR

JCO001 | **Fundamentals of Oral Communication** 0.5sem

Learn about public speaking theory, and develop the skills needed to speak effectively in various situations. Learn about clear oral expression, informed critical thinking, research techniques, rhetorical modes, and group communication. Write and deliver several speeches.

| Dual (AACC Course COM111 | 3 credits)

Chesapeake High School

Information Management

Information Management and the technology used to manage information impacts every facet of our lives. The Information Management Signature Program will help students prepare for and be more effective in their careers by teaching them the principles of Information Management through the IM Process—Acquire>Organize >Distribute>Reflect.

X06--3 | **Information Management Exploration 1** 0.5sem

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.

X07013/23 Honors Information Management Exploration 2 [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Chesapeake High School only.

AACC Courses

Junior Year | Fall Semester | *Chesapeake HS*

JCO004 | **Introduction to Interpersonal Communication** 0.5sem

Explore the function of verbal and nonverbal communication in the development of interpersonal relationships. Study perception, self-concept, listening, intercultural and intergender communication and conflict management.

| Dual (AACC Course #COM110 | 3 credits)

Junior Year | Spring Semester | *Chesapeake HS*

JCA002 | **Computing and Information Technology** 0.5sem

Learn computing and information technology concepts and skills that are fundamental to social, personal, business, and academic environments. Learn about the Internet, networking, hardware, software, security, privacy, ethics, and emerging technologies. Participate in hands-on labs using Microsoft Office applications, including work processing, spreadsheets, databases, and presentations, and the Windows operating system.

| Dual (AACC Course #CTA100 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus or online asynchronous*

JBE007 | **Introduction to Business** 0.5sem

Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies.

| Dual (AACC Course #BPA111 | 3 credits)

JBE008 | **Business Communication** 0.5sem

Learn written and oral communication skills needed in a professional environment. Focus on written reports and proposals, workplace communication, the job search, and oral presentations designed to inform or persuade.

| Dual (AACC Course #BPA162 | 3 credits)

continued

Senior Year | Spring Semester | *AACC Arnold Campus or online asynchronous*

JCO001 | **Fundamentals of Oral Communication** 0.5sem

Learn about public speaking theory, and develop the skills needed to speak effectively in various situations. Learn about clear oral expression, informed critical thinking, research techniques, rhetorical modes, and group communication. Write and deliver several speeches

| Dual (AACC Course #COM111 | 3 credits)

JCO003 | **Intercultural Communication** 0.5sem

Investigate the challenges of communication with individuals from different cultures. Learn to describe and analyze cultural patterns. Study strategies for increasing intercultural communication competency.

| Dual (AACC Course #COM200 | 3 credits)

OR

JAR002 | **Introduction to Digital Design** 0.5sem

Learn basic design principles, concepts, and tools used by artists and designers working with digital media. Develop the skills to create, control, and manipulate digital artwork. Explore contemporary digital culture and history while producing original design projects.

| Dual (AACC Course #ART106 | 3 credits)

Crofton High School

Students will gain an overview of aspects related to the Signature theme to include personal safety, global and community safety, information and intellectual security, and financial security to prepare the for post-secondary opportunities.

X06-12 | **Safety and Security in the Digital Age Exploration 1** 0.5sem

Students will explore concepts related to the Signature theme centered around both safety and security. Students will explore these concepts through interactive lessons, field experiences, and through workforce preparation. Available at Crofton High School only.

X07112/22 | **Honors Safety and Security Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Crofton High School only.

AACC Courses

Junior Year | Fall Semester | *Crofton HS*

JCS001 | **Cyber Essentials** 0.5sem

Develop an understanding of computer technology within the context of the cyber domain in our connected world. Learn about the basic structure of hardware, software, and network systems, the threats these systems face, and how to defend them. Use hands-on lab experiences to develop the foundational skills needed to maintain and protect computer systems.
| Dual (AACC Course CTS107 | 3 credits)

Junior Year | Spring Semester | *Crofton HS*

JCS002 | **Network Essentials** 0.5sem

Learn the fundamental building blocks that form a modern network including protocols, topologies, hardware and network operating systems. Develop networking knowledge and skills related to TCP/IP, Ethernet, and wireless transmission and security. Learn to maintain and troubleshoot existing local area networks.
| Dual (AACC Course CTS110 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus*

JCS006 | **Network Security Fundamentals** 0.5sem

Learn the current risks and threats to an organization's data together with ways to safeguard critical electronic assets, including network services, devices, traffic and data. Develop a foundation to prepare for further study in other specialized security fields. This course addresses the core material of the CompTIA Security+ exam objectives.
| Dual (AACC Course CTS140 | 4 credits)

JCS004 | **Networking 1** 0.5sem

Describe the devices and services used to support communications in data networks and the Internet. Describe the role of protocol layers in data networks. Design, calculate, and apply subnet masks and addresses in IPv4 and IPv6 networks. Explain Ethernet concepts such as media, services, and operations. Build simple Ethernet networks using routers and switches. Use Cisco command-line (CLI) commands to perform basic router and switch configurations. Utilize network utilities to verify small networks and analyze data traffic.
| Dual (AACC Course CTS130 | 4 credits)

Senior Year | Spring Semester | *AACC Arnold Campus*

JCS005 | **Networking 2** 0.5sem

Explore switching concepts such as VLAN and trunking technologies. Configure and troubleshoot a small switched network. Explain how vulnerabilities can be mitigated to enhance network security. Learn the purpose and operation of routing concepts. Explain the benefits and operations of DHCP. Discuss network concepts such as WLANs, LAN redundancy and link aggregation.
| Dual (AACC Course CTS131 | 4 credits)

Optional

JCS003 | **Introduction to Linux** 0.5sem

Learn the basic elements of the Linux operating system including the hierarchical file structure. Create and edit files, write shell programs and provide system security. Hands-on experience with a multi-user Linux system is provided and emphasized.
| Dual (AACC Course CTS120 | 4 credits)

Glen Burnie High School

Public Service

Students gain an understanding of ethical standards and techniques needed to meet current and future challenges facing our community through innovative thinking and real-world experiences in a variety of public service careers that help a community grow and thrive.

X06--4 | **Public Service Exploration 1** 0.5sem

The Public Service Explorations 1 course exposes students to aspects of service as provided by private, public, or non-government agencies. Units covered in the course include criminal justice, law enforcement, national security, social policy, citizenship, and leadership. Students will be provided with opportunities to attend field experiences, explore careers and colleges of interest, and interact with professionals within the public service sector. Available at Glen Burnie High School only.

T70417/27 | **Honors Internship/Capstone Exploration** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Glen Burnie High School only.

AACC Courses

Junior Year | Fall Semester | *Glen Burnie HS*

JCJ002 | **Introduction to Criminal Justice** 0.5sem

A survey of history, development, and philosophy of law enforcement. Introduces the local, state, and federal agencies involved in the administration of criminal justice. The court and trial process are included.
| Dual (AACC Course CJS111 | 3 credits)

Junior Year | Spring Semester | *Glen Burnie HS*

JCJ003 | **Police Operations** 0.5sem

Study of line activities of uniformed police with emphasis on patrol. Areas of study include traffic enforcement, investigation, juvenile crime, vice prevention and other operations.
| Dual (AACC Course CJS112 | 3 credits)

Senior Year | Fall Semester | *GBTC or online*

JCJ004 | **Penology** 0.5sem

Studies the history and philosophy of corrections in federal, state and community systems along with probation, parole, and other methods of rehabilitating offenders.
| Dual (AACC Course CJS113 | 3 credits)

JLG001 | **Criminal Law** 0.5sem

Examines pertinent aspects of federal and state criminal law. Includes basic elements of law and specific issues of interest to law enforcement. Discuss recent court decisions relating to crimes against the person and property.
| Dual (AACC Course LGS215 | 3 credits)

Senior Year | Spring Semester | *GBTC or online*

JHL004 | **Introduction to Homeland Security** 0.5sem

Introduces students to the vocabulary and important components of Homeland Security. Explores the state, national, and international laws impacting Homeland Security. Includes an examination of the most critical threats confronting Homeland Security.
| Dual (AACC Course HLS111 | 3 credits)

JCJ005 | **Criminal Justice Ethics** 0.5sem

Provides a historical analysis of the moral and ethical issues encountered in policing, corrections, probation, parole, prosecution, and criminal defense. Examines the consequences of ethical transgressions in the various areas of criminal justice practice. Topics include history of the criminal justice system, regulation of criminal justice professionals, professional discipline, police brutality, police misconduct, police-community relations, correctional misconduct and violations of policy and law. Explores the process for investigation of acts of misconduct and unethical behavior in the criminal justice field.
| Dual (AACC Course CJS225 | 3 credits)

Meade High School

Will identify, promote, and prepare our students for college and career opportunities in the field of Homeland Security and all of its applications. To incorporate STEM and Language/Cultural content and knowledge throughout all of the curriculum areas, to embed the career skills and experiences in all of our co-curricular events and empower our students to become leaders in their future educational and career endeavors.

X06--5 | **Homeland Security Exploration 1** [FY] 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. In this year-long course, we examine various policy measures and practices as they relate to democratic values, civil responsibilities, and liberties. Available at Meade High School only.

X11710/20 | **Honors Homeland Security Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Meade High School only.

AACC Courses

Junior Year | Fall or Spring Semester | *Meade HS*

X11711 | **Honor Homeland Security Counterterrorism/ Intelligence (Proficiency Credit)** 0.5sem

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. Students who successfully complete an AACC proficiency assessment earn 3 college credits in HLS 111 (Introduction to Homeland Security). Available at Meade High School only.

| Dual (AACC Course HLS211 | 3 credits)

Junior Year | Spring Semester | *Meade HS*

JCJ002 | **Introduction to Criminal Justice** 3 credits

A survey of history, development and philosophy of law enforcement. Introduces the local, state, and federal agencies involved in the administration of criminal justice. The court and trial process are included.

| Dual (AACC Course CJS111 | 3 credits)

Senior Year | Fall Semester | *AACC or onlineSenior Year | Spring Semester | AACC or online*

JCJ004 | **Penology** 3 credits

Studies the history and philosophy of corrections in federal, state and community systems along with probation, parole, and other methods of rehabilitating offenders.

| Dual (AACC Course CJS113 | 3 credits)

JLG001 | **Criminal Law** 3 credits

Examines pertinent aspects of federal and state criminal law. Includes basic elements of law and specific issues of interest to law enforcement. Discuss recent court decisions relating to crimes against the person and property.

| Dual (AACC Course LGS215 | 3 credits)

Senior Year | Spring Semester | *AACC or Online*

JHL002 | **Intelligence Analysis & Security Management** 3 credits

Examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks and other threats. Explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of Homeland Security measures implemented by the United States and explore how the intelligence community operates.

Prerequisite(s): *HLS 111 or permission of director*

| Dual (AACC Course HLS211 | 3 credits)

continued

Meade High School, continued...

JHL001 | **Transportation and Border Security** 3 credits

Provides an in-depth view of modern border and transportation security. Specific topics include security for seaports, ships, aircraft, trains, trucks, pipelines, buses, etc. Focuses on the technology needed to detect terrorists and their weapons as well as includes discussion on legal, economic, political, and cultural aspects of the problem. Lab fee $20.

Prerequisite(s): *HLS111 or BPA235 or permission of director.*

| Dual (AACC Course HLS213 | 3 credits)

North County High School

IT3 connects students to the career opportunities in their immediate community, creates college and career pathways through partnerships with community and business partners at BWI Marshall Airport, the Port of Baltimore, Maryland state transportation agencies, the Maryland Office of Tourism, international trade associations and many other IT3-related organizations. Opportunities are made visible to students so they can step into a rich future.

X06--6 | **International Trade, Transportation, & Tourism Exploration 1** 0.5sem

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. Major topics include leadership and management, international business, policy and regulations, finance and economics, and professional culture. Available at North County High School only.

| CTE

X07016/26 | **Honors International Trade, Transportation, & Tourism Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at North County High School only.

AACC Courses

The suggested course sequence is as follows:

Junior Year | Fall Semester | *North County HS or online*

JBE001 | **Introduction to Transportation & Logistics** 0.5sem

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. The course also includes an industry-specific "current issues" component, an "employment opportunities" section that explores the industry job market and a look at the technologies and issues that will shape the future of transportation and logistics.

| Dual (AACC Course BPA235 | 3 credits)

Junior Year | Spring Semester | *North County HS*

JBE003 | **Supply Chain Management** 0.5sem

Introduces students to the global supply chain with an emphasis on supply sources, distribution, production planning, information systems, customer service, inventory management, warehouse management, supply chain relationships and challenges facing managers today. Students completing the course will understand supply chain management systems and relationships and will be able to integrate information regarding the flow of materials across the supply chain.

Prerequisite(s): *BPA 235 or permission of department chair.*

| Dual (AACC Course BPA237 | 3 credits)

Note: *Students must take BPA 275 prior to the end of the Fall Semester of Senior year.*

JBE005 | **Internship in Business 1 (Proficiency Credit)** 0.5sem

A course designed to give students in business technology areas an opportunity to acquire practical experience with classroom learning. Objectives are set by the supervising employer, the student, and the faculty member.

Prerequisite(s): *Permission of instructor or department chair.*

Alternate: *BPA 111 if AACC programming decisions reflect virtual learning or a location cannot be secured.*

| Dual (AACC Course BPA275 | 3 credits)

Senior Year | Fall Semester | *GBTC or online*

JBE002 | **Intro to Airport and Seaport Operations** 0.5sem

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. The course also includes an industry-specific "current issues" component, an "employment opportunities" section that explores the industry job market and a look at the technologies and issues that will shape the future of transportation and logistics.

| Dual (AACC Course BPA236 | 3 credits)

JHL001 | **Transportation and Border Security** 0.5sem

Provides an in-depth view of modern border and transportation security. Specific topics include security for seaports, ships, aircraft, trains, trucks, pipelines, buses, etc. Focuses on the technology needed to detect terrorists and their weapons as well as includes discussion on legal, economic, political, and cultural aspects of the problem. Lab fee $20.

Prerequisite(s): *HLS 111 or BPA 235 or permission of director.*

| Dual (AACC Course HLS213 | 3 credits)

Senior Year | Spring Semester | *GBTC or online*

JBE004 | **Domestic & International Freight Operations** 0.5sem

Examines current issues and best practices in the area of domestic and international freight operations. Course topics include transportation providers, regulation and policy, carrier strategies, costing and pricing, information systems, transportation management, and the negotiation and bidding process.

Prerequisite(s): *BPA 235 or permission of department chair.*

| Dual (AACC Course BPA238 | 3 credits)

Northeast High School

Students will explore how health, fitness, leisure, financial security, and environment influence 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.

X06--7 | **Human Performance Exploration 1** 0.5sem

The Human Performance Exploration 1 course will provide an introduction and overview for students to explore 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 design thinking and engineering processes, cutting-edge technology, job shadow experiences, and internships. Available at Northeast High School only.

X07017/27 | **Honors Human Performance Ex. 2 [FY] 0.5/sem**

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Northeast High School only.

PLTW Biomedical Science

M35 | **Honors Principles of Biomedical Sciences (PBS)** [FY] 0.5/sem

This course introduces the biomedical sciences through exciting hands-on projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. 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.

M36 | **Honors Human Body Systems (HBS)** 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.

Prerequisite(s): *Honors Principles of Biomedical Sciences (PBS).*

M37 | **Honors Medical Interventions (MI)** [FY] 0.5/sem

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.

Prerequisite(s): *Honors Principles of Biomedical Sciences (PBS).*

M39 | **Honors Biomedical Innovations** [FY] 0.5/sem

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution.

Prerequisite(s): *Honors Principles of Body Systems (PBS), Honors Human Body Systems (HBS), Honors Medical Interventions (MI).*

AACC Courses

The suggested course sequence is as follows:

Junior Year | Fall Semester | *Northeast HS*

JBH002 | **Assessment and Theory of Fitness and Health** 0.5sem

Create a physically active, individualized exercise program with guidance from the course instructor. Use cardiovascular and weight training equipment in the college fitness center to improve and maintain health and wellness. Conduct pre and post-assessments to evaluate physical fitness. Examine the topics of physical activity, nutrition, weight management, stress, cardiovascular health and related wellness behaviors. Investigate the role of each dimension's impact on lifelong wellness and health, behavior change strategies as they relate to health promotion efforts.

| Dual (AACC Course HEA100 | 3 credits)

Junior Year | Spring Semester | *Northeast HS*

JBH003 | **Foundations of Health, Exercise, and Sport** 1.0sem

Examine the disciplines and subdisciplines in exercise science. Discuss the scientific basis that underlies health, exercise, and sport. Collect, analyze, and interpret laboratory data related to the diverse functions of the human body. Identify career opportunities within exercise science and allied health, including requirements for advanced study and appropriate coursework for the profession.

| Dual (AACC Course HEA101 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus*

JPH006 | **Care and Prevention of Athletic Injuries** 1.0sem

Learn theoretical and practical methods of preventing and treating injuries, techniques of taping and bandaging, and use of rehabilitative methods. Understand the mechanisms of injury, strategies for prevention, and techniques to rehabilitate an athlete or client following injury.

| Dual (AACC Course HEA295 | 3 credits)

JPH008 | **Advanced First Aid, CPR, and AED** 0.5sem

Examine the appropriate intervention skills to respond to emergencies such as recognition, access, assessment and management until more advanced personnel arrive. Identify and successfully demonstrate the components of cardiopulmonary resuscitation (CPR) and automatic defibrillator device (AED) and advanced first aid by a first responder.

| Dual (AACC Course HEA150 | 3 credits)

Northeast High School, continued...

Senior Year | Spring Semester | *AACC Arnold Campus or Online*

JPH001 | **Personal and Community Health** 0.5sem

Identify the dimensions of wellness and the various factors that promote optimal health for individuals and their communities. Describe the current and emerging issues in health promotion and disease prevention and evaluate evidenced-based methods to control risk factors in diverse populations. Examine topics and health behavior strategies to optimize and enhance quality of life.

| Dual (AACC Course HEA111 | 3 credits)

JPH005 | **Personal Trainer Fundamentals** 1.0sem

Explore the principles of exercise science and learn how the body responds to physical training. Apply knowledge of physiological adaptations and response to exercise to design training programs for clients, students or athletes to help them achieve their sports and fitness goals. Examine the physiological assessments used to evaluate the components of fitness, including posture, flexibility, balance, core function, cardiorespiratory fitness and muscular strength/endurance. Learn how to facilitate rapport, adherence, self-efficacy and behavior change in clients.

| Dual (AACC Course HEA230 | 4 credits)

Junior or Senior Year | Fall or Spring Semester

JPH007 | **Weight Management: Utilizing Healthy Approaches to Diet and Physical Activity** 0.5sem

Introduces students to the concepts of energy balance, healthful eating patterns and physical fitness or healthy living. The course examines many of the biological and environmental theories associated with weight management and reviews current research in this area. Emphasis is also placed on physical fitness compatible with the achievement and maintenance of a healthy body weight. Popular diet programs will be reviewed and evaluated with regard to weight management and overall health impact.

| Dual (AACC Course HEA137 | 1 credit)

OR

JPH004 | **Nutrition for Fitness and Sport** 0.5sem

Introduces the student to current dietary guidelines appropriate for a healthy and physically active lifestyle. Explores the nutritional needs of physically active individuals, including recreational as well as competitive athletes. The role of each nutrient is reviewed, with emphasis on their utilization during exercise and recovery. Dietary modifications to optimize performance during different types of physical activity also will be discussed. A brief review of scientific data regarding ergogenic aids also will be presented.

| Dual (AACC Course HEA138 | 1 credit)

Old Mill High School

International Economics & Finance

The mission of the International Economics & Finance Signature at Old Mill High School is to collaborate with the Old Mill community to equip and grow students with the skills and knowledge necessary to make informed financial decisions and positively contribute to local and global economies as innovators and leaders.

X06--8 | **International Economics & Finance Exploration 1** 0.5sem

In International Economics and Finance Explorations 1 students will develop an economic way of thinking, an understanding of major issues in economics, and financial literacy skills through project and game-based inquiry learning and collaboration with experts in their community. Students will begin to develop a personal financial portfolio focused around their future goals and practice in making wise investment choices through career investigation and participation in the Stock Market Game. Available at Old Mill High School only.

X07018/28 | **Honors International Economics & Finance Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Old Mill High School only.

AACC Courses

Junior Year | Fall or Spring Semester | *Old Mill HS*

JEN002 | **Intro to Entrepreneurshi**p 0.5sem

Discover and practice the components of entrepreneurship, idea generation, creative thinking, and opportunity recognition. Experiment using entrepreneurial methods and evaluate potential business ideas. Compare and analyze various strategies entrepreneurs have used to start and grow their businesses.

| Dual (AACC Course ESI103 | 3 credits)

Junior Year | Fall Semester | *Old Mill HS*

JBE007 | **Introduction to Business** 0.5sem

Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies.

| Dual (AACC Course BPA111 | 3 credits)

Senior Year | Fall Semester | *AACC campus or online*

JQ6100 | **Principles of Management**

Explore the managerial functions of planning, leading, organizing and controlling, and the management process. Study, through application, topics to include environmental influences, organization design, motivation, ethics, communication and leadership.

| Dual (AACC Course BPA142 | 3 credits)

JBE013 | **Principles of Marketing** (online, asynchronous) 0.5sem

An introduction to the principles governing the distribution of goods and services at various levels of distribution. The management viewpoint is stressed, and emphasis is on making decisions regarding product, price, promotion, and place.

| Dual (AACC Course BPA125 | 3 credits)

Optional

JBE018 | **Financial Accounting** 0.5sem

Learn principles of financial accounting for the corporate entity. Study accrual-based accounting and the accounting cycle. Analyze and record financial transactions; prepare financial statements; and learn to account for receivables, inventories, fixed assets, liabilities and shareholders' equity.

| Dual (AACC Course BPA201 | 3 credits)

continued

Old Mill High School, continued...

Senior Year | Spring Semester | *AACC campus or online*

JBE008 | **Business Communication** 0.5sem

Learn written and oral communication skills needed in a professional environment. Focus on written reports and proposals, workplace communication, the job search, and oral presentations designed to inform or persuade.

| Dual (AACC Course BPA162 | 3 credits)

JBE019 | **Small Business Management** 0.5sem

Examine the principles and practices involved in managing a small business. Topics include business planning, legal issues and forms of small businesses, financial management, human resources management, marketing, customer relationship management, family businesses and e-commerce. Provides information to current or prospective managers of existing small businesses.

| Dual (AACC Course BPA120 | 3 credits)

OR

JBE030 | **Human Resources Management** 0.5sem

Gain an overview of the human resource management profession. Study the roles, responsibilities, relationships, functions, and processes of human resource management from a systems perspective. Discuss specialty areas of human resources to include recruitment and selection, compensation and benefits, employee/labor relations, performance management, and training and development.

| Dual (JBE030)| Dual (AACC Course BPA172 | 3 credits)

Severn Run High School

Severn Run, the newest high school in Anne Arundel County, will follow the lead of the other comprehensive high schools in creating and implementing a Signature program. Community members and interested business partners will work together to identify a Signature theme which encompasses the interests, resources, jobs/careers and "feel" of the Severn Run community. Coursework will be built from the input of an Integrated Community Stakeholders Team (ICST) to ensure that students experience real-world opportunities aligned to post-secondary experiences.

X061-3 | **Explorations 1** 0.5sem

This course is a broad survey of current issues, opportunities, college and career experiences, and workforce relevant topics centered around a Signature theme that is unique to the community. Students will explore project-based learning and career investigation in this one semester course. Available at Severn Run High School only.

X07113/23 | **Honors Explorations 2** [FY] .5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Severn Run High School only.

Severna Park High School

Students work collaboratively to analyze the organizations of businesses, current national and international business policies and trends through case studies, field trips, and guest industry specialists. They will work in teams to solve an innovative project-based businesses challenge and formally present their idea to community stakeholders.

X06019 | **Business Innovation & Leadership Exploration 1** 0.5sem

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. They will work in teams with a mentor from the Integrated Community Stakeholder 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.

X07019/29 | **Honors Business Innovation & Leadership Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Severna Park High School only.

AACC Courses

The suggested course sequence is as follows:

Junior Year | Either Semester | *Severna Park HS*

JEN002 | **Intro to Entrepreneurshi**p 0.5sem

Discover and practice the components of entrepreneurship, idea generation, creative thinking, and opportunity recognition. Experiment using entrepreneurial methods and evaluate potential business ideas. Compare and analyze various strategies entrepreneurs have used to start and grow their businesses.

| Dual (AACC Course ESI103 | 3 credits)

Junior Year | Spring Semester | *Severna Park HS*

JBE007 | **Introduction to Business** 0.5sem

Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies.

| Dual (AACC Course BPA111 | 3 credits)

OR AACPS Business Management offering

Senior Year | Fall Semester | *AACC or online*

JQ6100 | **Principles of Management** 0.5sem

Explore the managerial functions of planning, leading, organizing, and controlling, and the management process. Study, through application, topics to include environmental influences, organization design, motivation, ethics, communication and leadership.

(Dual JQ6100)| Dual (AACC Course BPA142 | 3 credits)

JBE013 | **Principles of Marketing** 0.5sem

Examine the components of an effective marketing strategy. Understand target markets and how to conduct market research. Explore pricing strategies and other tools designed to inform and persuade consumers. Determine what products or services to provide and effective ways to distribute products and services.

| Dual (AACC Course BPA125 | 3 credits)

OR

JBE030 | **Human Resources Management** 0.5sem

Gain an overview of the human resource management profession. Study the roles, responsibilities, relationships, functions, and processes of human resource management from a systems perspective. Discuss specialty areas of human resources to include recruitment and selection, compensation and benefits, employee/labor relations, performance management, and training and development.

| Dual (AACC Course BPA172 | 3 credits)

continued

Severna Park High School, continued...

Senior Year | Spring Semester | *AACC or online*

JBE008 | **Business Communications** 0.5sem

Examine all aspects of business communications. Focus on written reports and proposals, oral presentations including interviewing skills and persuasive proposals as well as electronic communications including email, social media, and business research on the Internet

Prerequisite: *Eligibility for ENG 101/ENG 101A.*

| Dual (AACC Course BPA162 | 3 credits)

JBE014 | **Digital Marketing and Analytics** 0.5sem

Learn the core concepts of an eMarketing campaign. Explore email marketing, online advertising, social media, viral marketing, website copywriting and design, and other electronic tools used in supporting a traditional marketing campaign.

| Dual (AACC Course BPA127 | 3 credits)

Optional

JBE018 | **Financial Accounting** 0.5sem

Learn principles of financial accounting for the corporate entity. Study accrual-based accounting and the accounting cycle. Analyze and record financial transactions, prepare financial statements, and learn to account for receivables, inventories, fixed assets, liabilities, and shareholders' equity.

Prerequisite: *Eligibility for ENG 101/ENG 101A and eligibility for any general education math course or permission of department chair.*

| Dual (AACC Course BPA201 | 3 credits)

South River High School

Global Communications and Public Affairs combines government relations, media communications, issue management, corporate and social responsibility, information dissemination, technology, and strategic communications advice.

X061-0 | **Global Communications & Public Affairs Exploration 1** 0.5sem

This course will provide students with an understanding of international and intercultural communications in a multimedia world. In a project/problem-based environment, integrated with advanced coursework, students solve real-world local and global problems with their peers using cutting-edge technology, discussions, and case studies. The course will cover a variety of global issues including diversity of news and mass communications; emerging trends in global business communication and media; advances in technology; global sources and systems of communication; ethical and legal issues; and the role and impact of advertising and public relations in the global marketplace. Available at South River High School only.

X07110/20 | **Honors Global Communication & Public Affairs Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at South River High School only.

AACC Courses

Junior Year | Fall Semester | *South River HS*

JBE007 | **Introduction to Business** 0.5sem

Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies.

| Dual (AACC Course BPA111 | 3 credits)

Junior Year | Spring Semester | *South River HS*

JCO001 | **Fundamentals of Oral Communication** 0.5sem

In this course, students learn about public speaking theory, and develop the skills needed to speak effectively in various situations. Learn about clear oral expression, informed critical thinking, research techniques, rhetorical modes, and group communication. Write and deliver several speeches.

Note: *Eligibility for ENG 101 or ENG 101A is strongly recommended.*

| Dual (AACC Course COM111 | 3 credits)

Senior Year | Fall Semester | *AACC Arnold Campus*

JBE008 | **Business Communication** 0.5sem

Examine all aspects of business communications. Focus on written reports and proposals, oral presentations including interviewing skills and persuasive proposals as well as electronic communications including email, social media, and business research on the Internet.

| Dual (AACC Course BPA162 | 3 credits)

JCA002 | **Computing and Information Technology** 0.5sem

Learn computing and information technology concepts and skills that are fundamental to social, personal, business, and academic environments. Learn about the Internet, networking, hardware, software, security, privacy, ethics, and emerging technologies. Participate in hands-on labs using Microsoft Office applications, including work processing, spreadsheets, databases, and presentations, and the Windows operating system.

| Dual (AACC Course CTA100 | 3 credits)

Senior Year | Spring Semester | *AACC Campus or online*

JBE013 | **Principles of Marketing** 0.5sem

Examine the components of an effective marketing strategy. Understand target markets and how to conduct market research. Explore pricing strategies and other tools designed to inform and persuade consumers. Determine what products or services to provide and effective ways to distribute products and services.

| Dual (AACC Course BPA125 | 3 credits)

JQ3101 | **Advertising & Sales Promotion** (online only) 0.5sem

Think critically and use metrics to evaluate the appropriate mix of promotional activities to effectively market your product or service. Create commercials, social media posts, online ads, and sales material to support an advertising campaign.

| Dual (AACC Course BPA126 | 3 credits)

or

JBE014 | **Digital Marketing and Analytics** 0.5sem

Investigate strategic marketing analytic concepts. Apply data-driven decision making to integrated marketing communication solutions and content creation practices. Evaluate user experience design to support business objectives to coordinate and/or enhance a digital campaign. Discuss the varied managerial philosophies to do so.

| Dual (AACC Course BPA127 | 3 credits)

Southern High School

Design: Preservation & Innovation

Students, through exposure to the Signature theme become design-thinkers with vital workforce skills such as communication, collaboration, critical thinking, and creativity. They assess needs, apply global awareness and learning, design new ways of doing and develop new products appropriate to evolving needs. Students use a Design Process: Investigate, Interpret, Ideate, Experiment, Evolve.

X061-1 | **Design: Preservation & Innovation Exploration 1** 0.5sem

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 experiences, explore careers and colleges of interest, and interact with professionals to acquire practical knowledge and investigate pathways for future explorations. Course topics may include design thinking, graphic design, media design, urban planning, architecture, agriculture design, and landscape design. Available at Southern High School only.

X07111/121 | **Honors Design Preservation & Innovation Exploration 2** [FY] 0.5/sem

This full-year course expands upon the content of Explorations 1 with deeper learning and rigorous content while leading students through a long-term Capstone experience within the lens of the school-specific Signature theme. The capstone experience is designed to provide students an opportunity to explore an area of high interest while also learning important career-essential skills such as time management, budgeting, research skills, and presentation skills. Available at Southern High School only.

AACC Courses

Junior Year | Fall Semester | *Southern HS*

JAR001 Two-Dimensional Design 0.5sem

Introduces the theories and the concepts of basic visual design. Through a variety of studio problems, explore composition and color theory as it relates to two-dimensional art forms. Introduces the computer as a design tool. No previous art instruction is necessary.

| Dual (AACC Course ART100 | 3 credits)

Junior Year | Spring Semester | *Southern HS*

JAN001 | **Intro Cultural Anthropology** 0.5sem

Explore the diversity that defines human experience and apply cross-cultural thinking to contemporary social problems. Introduce the concepts, theories, and methods of cultural anthropology with a focus on holism and cultural relativism. Using an ethnographic approach, examine various aspects of cultures across the globe, such as subsistence strategies, political organization, social identities and hierarchies, marriage, family and kinship systems, religious behavior, health, language, creative and artistic expressions, and issues of power in relation to colonialism, socio-economic discrimination, and global inequalities.

| Dual (AACC Course ANT121 | 3 credits)

Senior Year | Fall Semester | *Southern HS or online*

JAR003 | **Digital Photography 1** 0.5sem

In this course, students learn the technical and aesthetic properties of digital photography including camera operation, composition, and lighting. Gain hands-on experience in photo editing software such as Photoshop and Lightroom. Explore the creative aspects of digital photography through assignments, lectures, and demonstrations.

| Dual (AACC Course ART120 | 3 credits)

JAR002 | **Introduction to Digital Design** 0.5sem

Learn basic design principles, concepts, and tools used by artists and designers working with digital media. Develop the skills to create, control, and manipulate digital artwork. Explore contemporary digital culture and history while producing original design projects

| Dual (AACC Course ART106 | 3 credits)

Senior Year | Spring Semester | *Southern HS or online*

JAR006 | **Web Design 1** 0.5sem

In this course, students study concepts integral to designing for the Web, including Web design history, XHTML, CSS, image preparation/optimization, site planning, FTP and design using industry standard applications. Explore the designer's role within professional, cultural, and historical contexts.

| Dual (AACC Course ART170 | 3 credits)

JAR004 | **Graphic Design 1** 0.5sem

In this course, students use creative and critical thinking skills to research, generate concepts, and create solutions to a broad range of design problems. Learn fundamentals of conceptualization, type and image integration, design-thinking practices, and design terminology. Explore design history and contemporary examples in the field. Develop production techniques using industry software, presentation methods, reflection, and critique.

| Dual (AACC Course ART166 | 3 credits)

Course Descriptions by Subject

Art (Visual Arts)

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 study for students. 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, sculpture, 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 artwork; 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 — 1.0 Credit

Most Art courses meet the fine arts requirement. Additional fine arts courses can be found in the Dance, English (Theater Arts), and Music program sections.

Foundations of Studio Art Exemption

Students who demonstrate mastery of standards found in the Foundations of Studio Art course, through a portfolio review and assessment conducted by the Visual Arts department chairperson, may be exempted from the Foundations of Studio Art prerequisite and become eligible to enroll directly into a level 1 visual arts course.

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.

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*

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.

Prerequisite(s): *Drawing for Fashion 1*

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.

Prerequisite(s): *Foundations of Studio Art*

| DUAL (JG3500)

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/photography or family archival photographs. Further exploration of the Adobe Creative Cloud is part of the photographic process of the course. The curriculum is aligned with the MD State Dept. of Education Visual Arts Standards while embedding 21st century skills.

Prerequisite(s): *Photo & Digital Processes 1*

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 Visual Arts Standards while embedding 21st century skills. Students will develop and demonstrate knowledge of content specific, academically based, and cross-curricular vocabulary and themes.

Prerequisite(s): *Photo & Digital Processes 2*

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.

Prerequisite(s): *Foundations of Studio Art*

| DUAL (JG4500)

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.

Prerequisite(s): *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 artistic development through studio work, influences by master artists, outside experiences and sketchbook/journals.

Prerequisite(s): *Studio 2: 2D Art*

G48 | **AP Studio Art 2D Design** [FY] 0.5/sem

Students in this course develop their 2-D Design Portfolio according to the requirements of the College Board's Advanced Placement Program. Portfolios will be developed that demonstrate sustained investigation and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

Prerequisite(s): *Studio 1: 2D Art or* Photo & Digital Processes 1

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.

Prerequisite(s): *Foundations of Studio Art*

| DUAL (JG5500)

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.

Prerequisite(s): *Studio 1: 3D Art*

| DUAL (JG5600)

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.

Prerequisite(s): *Studio 2: 3D Art*

| DUAL (JG5700)

G637 | **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.

Prerequisite(s): *Foundations of Studio Art*

G58 | **AP Studio Art 3D Design** [FY] 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 sustained investigation and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

Prerequisite(s): *Studio 1: 3D Art*

G61 | **AP Studio Art Drawing** [FY] 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 sustained investigation and quality. Students will be encouraged to submit a portfolio for Advanced Placement credit.

Prerequisite(s): *Studio 1: 2D Art*

G62 | **AP Art History** [FY] 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.

Recommended: *Students who register for this course are encouraged to concurrently enroll in AP European History in order to strengthen conceptual understanding.*

Prerequisite(s): Foundations of Studio Art

G626 | **Seminar: AP Art History** [FY] 0.5sem (Elective)

Seminar: AP Art History provides students with the assistance they need to successfully complete their coursework.

Prerequisite(s): *Concurrent enrollment in AP Art History*

G01 | **Unified Visual Arts & Leadership 1–4** 0.5/sem

Affords students with and without disabilities the opportunity to focus on creativity as a means of expression through a variety of techniques as exemplified and demonstrated by the masters. All mediums, both 2D and 3D, will be explored through the elements of art and principles of design. This collaborative and cooperative environment will allow students to work at their own pace and skill level. The peer leaders will explore leadership traits such as communication, listening, group work, and critical thinking in order to best support in an inclusive environment.

G87 | **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.

If you have questions about any of the courses or programs described in this book, contact your School Counselor.

Dance

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

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

All students are expected to wear appropriate dance attire during dance education classes for the purpose of ensuring the safety and instruction of each participant.

There are three dance pathways:

Foundations of Dance and Dance 2–4 classes

- for students, beginners through advanced, who are interested in dance. No audition is required, however teacher approval is required to bypass Foundations of Dance.

Foundations of Dance for Athletes and Dance for Athletes 2–4 classes

- for those students wishing to use dance training techniques to enhance athletic performance. No audition is required. Prerequisite or Teacher approval is needed to bypass Foundations of Dance for Athletes.

Honors 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 in order to receive honors credit.

Fine Arts Graduation Requirement — 1.0 Credit

All Dance courses meet the fine arts requirement. Additional fine arts courses can be found in the Art, English (Theater Arts), and Music program sections.

L02 | **Foundations of Dance** 0.5/sem

Foundations of Dance promotes a focus on beginning levels of dance technique and performance. Students will explore units in ballet, modern, jazz, tap, hip hop, concert choreography and performance. Each unit will emphasize instruction in history, technique, vocabulary, observation and analysis of dance works, choreographic and performance exercises and demonstration of mastery through projects and presentations.

| Dual (JL0200)

L03 | **Dance 2–4** 0.5/sem

Dance 2, 3, & 4 emphasizes increased technical proficiency in dance and performance. Students will explore units in ballet, modern, jazz, tap, hip hop, concert choreography and performance. Each unit will emphasize instruction in history, technique, vocabulary, observation and analysis of dance works, choreographic and performance exercises and demonstration of mastery through projects and presentations.

Prerequisite(s): Foundations of Dance or prior permission from the teacher.

L11 | **Foundations of Dance for Athletes** 0.5/sem

Foundations of Dance for Athletes focuses on enhancing and refining athletic performance through dance techniques, conditioning, and training in the art of dance. Students will build knowledge of the five components of skill related physical fitness (agility, coordination, balance, power, and speed), while also exploring the complimentary Elements of Dance (body, energy, space, and time) through creative expression and performance.

L12 | **Dance for Athletes 2–4** 0.5/sem

Dance for Athletes 2, 3, & 4 emphasizes continued skill development and refinement through a variety of higher-level movement patterns and dance techniques. Students will continue to build knowledge of the five components of skill-related physical fitness (agility, coordination, balance, power, and speed), while also exploring the complimentary Elements of Dance (body, energy, space, and time) through creative expression and performance. This course explores the intersection of dance technique and the mind body connection.

Prerequisite(s): *Foundations of Dance for Athletes or prior permission from the teacher.*

L18 | **Honors Dance Company 1–4** [FY] 0.5/sem

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. For students to receive honors credit, they must participate in the after-school co-curricular component of this course.

Prerequisite(s): *Audition*

L10 | **Unified Dance and Leadership 1–4** 0.5/sem

This course will allow students with and without disabilities to focus on beginning levels of dance technique and creative movement in a collaborative and cooperative environment. Students will explore leadership characteristics, communication and listening skills, group work, and critical thinking skills in order to provide support in an inclusive environment.

English

Strong literacy skills in reading, writing, listening, and speaking are critical skills for career and college success. The program of studies in English is designed to cultivate in each of our student's proficiency in and appreciation of language and literature. Texts selected for study in English classes reflect a variety of genres, cultures, and time periods. Texts are selected for their complexity and literary merit.

Students must earn a minimum of four credits in English 9 through 12 in order to graduate. The English program further provides a rich array of electives such as theater arts, journalism, media studies, and all aspects of publication. Students are encouraged to participate in a rigorous program of required English courses and English electives. English

Graduation Requirements — 4 Credits

- English 9
- English 10
- English 11 (or an AP English)
- English 12 (or an AP English)

Required Assessments

To meet graduation requirements, all students must take the Maryland Comprehensive Assessment Program (MCAP) in English 10.

Fine Arts Graduation Requirement — 1.0 Credit

All theater courses meet the Fine Arts requirement. Additional fine arts courses can be found in the Art, Dance, and Music program sections.

A09 | **English 9** [FY] 0.5/sem

English 9 builds upon students' prior knowledge of grammar, vocabulary, language usage, and writing mechanics. Skills taught are aligned to the Maryland College and Career Readiness Standards (MCCRS) for reading literature, reading informational texts, writing, speaking, and listening. Critical thinking and analysis skills are developed through the instruction in this course, which introduces various genres of literature, including world literature, from a range of time periods.
| NCAA

A097 | **Honors English 9** [FY] 0.5/sem

Honors English 9 builds upon students' prior knowledge of grammar, vocabulary, language usage, and writing mechanics. Skills taught are aligned to the Maryland College and Career Readiness Standards (MCCRS) for reading literature, reading informational texts, writing in a variety of modes, speaking, and listening. Literary analysis skills are cultivated and refined through the instruction in this course, which examines various genres of literature, including world literature, from a range of time periods. Honors English 9 challenges students to consistently apply analytic and critical thinking skills when reading complex texts. Students may be assigned reading over the preceding summer.
| NCAA

A10 | **English 10** [FY] 0.5/sem

English 10 offers balanced instruction on composition and analysis of literature and nonfiction texts. Skills taught are aligned to the Maryland College and Career Readiness Standards (MCCRS) for reading literature, reading informational texts, writing, speaking, and listening. Students read an assortment of texts to examine author's style and purpose, and they write routinely in a variety of modes. Through the study of various genres of literature, including a variety of world literature, from a range of time periods, students will continue to develop their reading comprehension and critical thinking skills.
| NCAA

A107 | **Honors English 10** [FY] 0.5/sem

In Honors English 10 students apply critical theories and rhetorical analysis to complex literary and nonfiction texts by analyzing themes, structures, style, and purpose. Skills taught are aligned to the Maryland College and Career Readiness Standards (MCCRS) for reading literature and informational texts, writing in a variety of modes, speaking, and listening. Through consistent writing practice of multi-paragraph essays and arguments, students will refine their composition and language skills while enhancing their use of academic vocabulary. Through the study of various genres of literature, including a variety of world literature, from a range of time periods, students will further develop their critical thinking skills when composing well-developed literary analyses. Students may be assigned reading over the preceding summer.
| NCAA

A25| **English 10 w/AP Seminar** [FY] 0.5/sem

English 10 with AP Seminar offers a balanced focus on composition, literature, and research. It is designed to complement and enhance the in-depth, discipline-specific study of English to prepare students for additional AP coursework. Students learn about the different purposes and audiences of written compositions by writing argumentative, critical, and creative multiparagraph essays and compositions. Through the study of various genres of literature, including world literature, from a spectrum of time periods, students can improve their reading comprehension and develop the skills to determine the author's intent

and theme and to recognize the techniques used by the author to communicate his or her message. In addition, the course provides sustained practice of investigating issues from multiple perspectives and cultivates student writing abilities so they can craft, communicate, and defend evidence-based arguments. Students are empowered to collect and analyze information with accuracy and precision and are assessed through a team project and presentation, an individual written essay and presentation, and a written exam.

A11 | **English 11** [FY] 0.5/sem

In English 11 students continue to develop reading and writing skills. Students read a variety of genres of literature and informational texts, primarily American, from a spectrum of time periods. Emphasis is placed on writers' craft and stylistic devices. Through frequent writing and research assignments based upon readings, students strengthen skills in academic writing, including diction and usage, and techniques of using evidence from research. English 11 students will earn 10 hours toward the Service-Learning graduation requirement through the completion of a literacy-based community service project.

| NCAA

A117 | **Honors English 11** [FY] 0.5/sem

In Honors English 11 students read and analyze challenging texts representing a variety of genres of literature and informational texts, primarily American, from a spectrum of time periods. Emphasis is placed on critical analysis of writers' craft and stylistic devices. Through frequent writing and research assignments based upon readings, students strengthen skills in academic writing, including diction and usage, and techniques of effectively integrating evidence from research. Students build skills in preparation for AP English courses, including timed writing opportunities with authentic AP questions. Students may be assigned reading over the preceding summer. English 11 students will earn 10 hours toward the Service-Learning graduation requirement through the completion of a literacy-based community service project.

| NCAA

A12 | **English 12** [FY] 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, as they continue to develop their writing and language skills. Students demonstrate increasing independence in reading, writing, research, speaking, and listening.

| NCAA/DUAL (JA1201/02)

A127 | **Honors English 12** [FY] 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/DUAL (JA1201/202)

A19 | **American Film Studies** 0.5sem

This course is a survey of the history of American film, 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.

Prerequisite(s): *English 9 (C or better)*

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

The Film and Writing course will support students as they gain a deeper understanding of complex cinematic concepts. This course is designed to use film as a springboard for high-level discussion, analytical reading, and purposeful 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.

Prerequisite(s): *English 10 (C or better)*

A138 | **AP English Literature & Composition** [FY] 0.5/sem

In this culminating, college-level English course, students apply critical and analytical skills to classical and contemporary written works of romance, comedy, tragedy, and satire/irony. Students learn through close reading, explication, comparative analysis, seminar, and extensive writing about literature. Students are required to complete outside reading during the preceding summer. AP English Literature and Composition prepares students for success on the AP exam and to be effective readers and writers in college and in their careers.

Prerequisite(s): *English 10 (Successful passage of MCAP)*

| NCAA

A136 | **Seminar: AP English Literature & Composition** [FY] 0.5 Elective credit/sem

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

Concurrent enrollment: *AP Literature & Composition*

A208 | **AP English Language & Composition** [FY] 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, intended 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 to be effective readers and writers in college and in their careers.

Prerequisite(s): *English 10 (Successful passage of MCAP strongly recommended)*

| NCAA

A206 | **Seminar: AP English Language & Composition** [FY] 0.5sem Elective

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 as they develop their skills in analysis and interpretation of rhetoric, composition, research, mastery of language and usage, and self-evaluation of their reading and writing. Students also receive additional preparation for the AP exam.

Concurrent enrollment: *AP English Language & Composition*

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 journalism course is the foundation course for Newspaper 1 and Yearbook 1.

| NCAA/DUAL (JA1400)

A17 | **Creative Writing** 0.5sem

Creative Writing offers students the opportunity to develop and improve their technique and individual writing 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 creative writing skills.

| NCAA/DUAL (JA1700)

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.

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 basic light and sound design; 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. This course contributes to he fine arts graduation requirement.

| Dual (JA0600)

A07 | **Theatre Arts 2** 0.5/sem

Students specialize in areas of interest and apply this specialty working on 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. The expectations for the Theatre Arts 2 course exceed the State of Maryland Essential Learner Outcomes for Theatre. This course contributes to the fine arts graduation requirement.

Prerequisite(s): *Theatre Arts 1*

A08 | **Theatre Arts 3** 0.5/sem

Theatre Arts 3 allows students to expand their understanding of theatre beyond improvisation and script reading, which are the foci 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. This course contributes to the fine arts graduation requirement.

Prerequisite(s): *Theatre Arts 2*

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.

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.

Prerequisite(s): *Media Production 1*

A35 | **Newspaper 1–4** 0.5/sem

Students design 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.

Prerequisite(s): *Journalism*

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.

Prerequisite(s): *Journalism*

A45 | **Literary Magazine 1–4** 0.5/sem

Students study/apply design fundamentals and advanced publishing techniques to contribute to a literary publication 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*

A51 | **Speech** 0.5/sem

Students prepare informative and persuasive speeches, collect evidence from authoritative sources, and analyze arguments and strategies. This course provides strong foundational skills in public speaking for careers in public relations, law, politics, or communications.

| NCAA

A51 | **Speech and Debate** 0.5/sem

Students perform informative and persuasive speaking and practice extemporaneous and oral interpretations skills as preparation for interscholastic competition culminating in debate. Students who elect to take the Speech and Debate course develop leadership skills in expressive and competitive discourse.

| NCAA

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.

Prerequisite(s): *Written parent permission required. Successful completion of MCAP, and a 'C' or better in English 10 strongly recommended.*

| NCAA/DUAL (JA7400)

W71 | **Foundations of Language & Literacy 1-2** 0.5/sem

This course is designed to meet the needs of striving readers who will participate in a research-based reading intervention program that builds phonemic awareness, phonics, reading comprehension, academic vocabulary, and writing skills. Students who need extra support in decoding, including Special Education students and English-Language learners, will be assigned to this course.

W800 | **Core Reading in the Secondary Classroom 1-2** 0.5/sem

Students will participate in 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 9 class. Students are placed in this program only after testing or evaluation.

W09 | **Strategic Reading Supports** [FY] 0.5/sem

Approved alternate intervention programs are available for individual students with unique learning needs requiring a reading intervention in addition to receiving services for special education. Enrollment in an alternative reading intervention program requires approval from resource staff from the Division of Curriculum and Instruction on an individual student, on a case-by-case basis. An alternative program may be necessary when a student's needs in reading require an intervention that is not one of the Tier 2 or Tier 3 interventions listed on the AACPS Reading Continuum (credit bearing coursework).

A84 | **Theater Technology and Management** 0.5sem

Produce, program, and manage visual scenes and audio design for a live-theater production after learning how to use behind-the-scenes technology. This course contributes to the Fine Arts credit requirements.

X40 | **PSAT/SAT Prep (English & Mathematics)** 0.5sem

Students in grades 10-12 prepare for the PSAT and SAT by developing and applying strategies to strengthen their mathematical, reading and writing 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.

Recommended: Geometry and Algebra 2

A87 | **Department Aide—English** No credit

English Aide courses offer students the opportunity to assist instructors in preparing and organizing course curricula. While serving in this capacity, students may provide tutorial or instructional assistance to other students.

English Language Development (ELD)

Through an asset-based approach to language, ELD courses foster the development of academic literacy, mathematical competence, and social growth among English learners (ELs). Standards-aligned instruction in listening, speaking, reading, and writing skills supports equitable access to grade-level academic curriculum for ELs.

Initial placement in ELD courses is determined by an English language proficiency screening or scores on WIDA ACCESS for ELLs. Subsequent course placement is determined by teacher and counselor recommendations based on credit accumulation, progress toward English language proficiency, and time in U.S. schools.

AACPS allows for a total of two ELD course credits to be applied as English credit. English Learners must take English 10 and at least one other English course (English 9, 11, or 12) in order to meet graduation requirements. ELD credits not used toward English credit may be applied for World Languages credit.

Course Placement and Sequence for English Learners *(see table, next page)*

Course placements for English Learners (ELs) should be decided based on a dynamic evaluation of the student's prior education, grade level, English proficiency, and time in country. For example, some ELs are long-term and have been in U.S. Schools for more than six years; others are newcomers who may arrive with international credit on a high school transcript. Like all students, ELs enter high school with various academic and linguistic strengths as well as individual talents and interests. Counselors should consider course placement on a case-by-case basis in collaboration with stakeholders including the ELD teacher.

Scheduling Considerations

Graduation Requirements

Students must complete the state-assessed courses required for graduation by the end of Grade 11. These are English 10, Algebra I, US Government, and the LS MISA Pathway Science Courses. These courses are indicated within the table in **bold**.

English Credit

ELD I–V may be counted for up to two English credits toward graduation, in combination with English 10 and another English course (9, 11, or 12).

Internationally registering students who earn a 3.5 or above on the WIDA Screener assessment may be awarded English credit for international study of English.

Math Credit

Transitional Math at the high school level must be taught by a certified math teacher. Transitional Math can count for up to two mathematics credits.

Science Credit

ESOL Science I and ESOL Science II at the high school level must be taught by a certified science teacher. These courses can count for up to 1 Science Elective Credit.

World Language Credit

ELD credits not applied as English credit may be applied as World Languages credit. English Learners may still enroll in advanced World Languages courses to support native language literacy development. English Learners may also choose to pursue World Languages study of a third language.

E94010/20 | **ELD Newcomer** 0.5sem

English Learners in the "entering phase" are introduced to essential aspects of the English language. The ELD Newcomer course develops students' foundational literacy skills and introduces students to the academic expectations of U.S. high schools. Biliteracy supports are available to English Learners.

E90 | **ELD I** [FY] 1.0/sem

English Learners in the "entering phase" are introduced to essential aspects of the English language. The ELD I course develops students' academic language ability with intensive support. Instruction in social and academic language is based on the five WIDA Standards. Students begin to express academic ideas in English using phrases and short sentences. Students begin to read and understand multiple related simple sentences, grammatical structures, and general content expressions in English. Biliteracy supports are available to English learners. The course provides students with cultural knowledge to support their transition to the U.S. educational system.

Prerequisite(s): *ELD I is an appropriate initial placement for students who have been in U.S. schools for less than one year and whose English proficiency level is 1.0–1.9.*

E91 | **ELD II** [FY] 1.0/sem

English Learners in the "emerging phase" begin to communicate using essential aspects of the English language. The ELD II course develops students' ability to access grade-level content material with substantial linguistic support. Instruction in social and academic language is based on the five WIDA Standards. Students produce grammatically complex sentences that express multiple related ideas. Students employ repetitive structures and sentence patterns and appropriately use language conventions. Students read and understand language across content areas. Students comprehend and produce common forms and expressions in English. Biliteracy supports are available to English Learners.

Prerequisite(s): *ELD II is an appropriate initial placement for students who have been in U.S. schools for less than two years and whose English proficiency level is 2.0–2.7, or for students who have completed ELD I.*

E92 | **ELD III** [FY] 0.5/sem

English learners in the "developing phase" consistently integrate aspects of English into their communication. The ELD III course develops students' ability to access grade-level content material with some linguistic support. Instruction in social and academic language is based on the five WIDA Standards. Students produce simple and compound grammatical structures with occasional variation. Students refine their ability to employ repetitive structures and sentence patterns and to appropriately use language conventions. Students read and understand specific content language, including cognates and expressions with multiple meaning across content areas. Biliteracy supports are available to English Learners.

Prerequisite(s): *ELD III is an appropriate initial placement for students whose English proficiency level is 2.8–3.4, or for students who have completed ELD II.*

E93 | **ELD IV** [FY] 0.5/sem

English learners in the "expanding phase" appropriately apply aspects of English in their communication. The ELD IV course develops students' ability to participate in grade-level content tasks with minimal linguistic support. Instruction in social and academic language is based on the five WIDA Standards. Students speak and write with advanced fluency, producing multiple, grammatically complex sentences. Students produce and refine comprehension of technical and abstract content-area language. Students process discourse with complex sentence structures. Students approach native-like fluency in English. Biliteracy supports are available to English Learners.

Prerequisite(s): *ELD IV is an appropriate initial placement for students whose English proficiency level is 3.5–3.9 or for students who have completed ELD III.*

E94011/21 | **ELD V** [FY] 0.5/sem

English learners in the "bridging phase" masterfully use English in their communication. The ELD V course refines skills in listening, speaking, reading, and writing. Instruction in social and academic language is based on the five WIDA Standards. This course enhances literacy skills necessary for success in content areas. Instruction focuses on non-fiction reading comprehension, academic writing, application of research, and study skills including the use of technology to present research projects. Biliteracy supports are available to English Learners.

Prerequisite(s): *ELD V is an appropriate initial placement for students whose English proficiency level is 4.0 or for students who have completed ELD IV.*

E87| **Department Aide—ELD** No Credit

English Language Development 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.

E84| **ELD for Long-Term Success I**

Note: This course if for English learners who have been in U.S. schools for more than 6 years. This course is designed to support high school Long Term English Learners in achieving full English proficiency through advanced academic literacy skills, guided by the WIDA ELD Standards. Students will engage in reading, writing, speaking, and listening activities that enhance their comprehension of complex texts, develop clear and structured writing, and strengthen their academic vocabulary. Aligned with WIDA Standards in Language Arts, Mathematics, and Social Studies, this course also introduces students to interpreting data to support arguments, fostering foundational skills for academic success.

E85 | **ELD for Long-Term Success II**

In this advanced course, students build toward full English proficiency by engaging in rigorous academic literacy tasks aligned with WIDA ELD Standards across Language Arts, Mathematics, Science, and Social Studies. With a focus on constructing and presenting well-supported arguments, students will refine their reading comprehension, writing, and critical thinking skills while further developing speaking and listening abilities through structured presentations and debates.

Prerequisite: *ELD for Long-Term Success I*

Recommended English Learner Course Placement and Sequence

Core content courses could be completed as standard, honors or AP. **Bold** course name indicates State-assessed graduation requirements.

Grade 9 Status	Subject	Grade 9	Grade 10	Grade 11	Grade 12
Entering with Interrupted or Limited Formal Schooling *Target English Language Proficiency Level 1.0 –1.9*	English/ ELD	ELD Newcomer and ELD I	ELD II	ELD III and English 10/ or ELD Co-taught English 10	ELD IV and English 12/ or ELD co-taught English 12
	Social Studies	ELD Social Studies	History of the United States	**US Government**	World History
	Science	ELD Science I or II	Environmental Science	**Biology**	Science Elective
	Math	Transitional Math	Transitional Math or **Algebra I** or Geometry	**Algebra I** or Geometry or Algebra II	Geometry or Algebra II or Math Elective
		For students new to the U.S., use the International Student Math Placement Test to determine initial course placement			
Entering 1st year in U.S. Schools *Target English Language Proficiency Level 1.0–1.9*	English/ ELD	ELD I	ELD II	ELD III and **English 10** or **ELD Co-taught English 10**	ELD IV and English 12 or ELD co-taught English 12
	Social Studies	ELD Social Studies	History of the United States	**US Government**	World History
	Science	Environmental Science	**Biology**	Chemistry	Science Elective
	Math	Transitional Math or **Algebra I** or Geometry	Transitional Math **or Algebra I** or Geometry	**Algebra I** or Geometry or Algebra II	Geometry or Algebra II or Math Elective
		For students new to the U.S., use the International Student Math Placement Test to determine initial course placement			
Emerging 2nd year in U.S. Schools *Target English Language Proficiency Level 2.0 –2.9*	English/ ELD	ELD II	ELD III and **English 10** or **ELD co-taught English 10**	ELD IV and English 11 or ELD Co-taught English 11	ELD IV and English 12 or ELD Co-taught English 12
	Social Studies	History of the United States	**U.S. Government**	World History	—
	Science	Environmental Science	Biology	Chemistry or Science Elective	Science Elective or AP Science
	Math	Transitional Math or **Algebra I**	**Algebra I** or Geometry	Geometry or Algebra II	Algebra II or Math Elective
Developing 3rd year in U.S. Schools *Target English Language Proficiency Level 2.9–3.6*	English/ ELD	ELD III and English 9 or ELD Co-taught English 9	ELD IV and **English 10** or **ELD Co-taught English 10**	ELD V and English 11 or ELD Co-taught English 11	English 12 and Longterm Success I or ELD Co-taught English 12
	Social Studies	History of the United States	**U.S. Government**	World History	—
	Science	Environmental Science	**Biology**	Chemistry or Science Elective	Science Elective or AP Science
	Math	**Algebra I** or Geometry	**Algebra I** or Geometry	Algebra II	Math Elective

continued...

Recommended English Learner Course Placement and Sequence

Core content courses could be completed as standard, honors or AP. **Bold** course name indicates State-assessed graduation requirements.

Grade 9 Status	Subject	Grade 9	Grade 10	Grade 11	Grade 12
Expanding **4th year in U.S. Schools** *Target English Language Proficiency Level 3.6–4.1*	**English/ ELD**	English 9 and ELD III or IV or ELD Co-taught English 9	**English 10** and ELD IV or V or **ELD Co-taught English 10**	English 11 and ELD V and Longterm Success I or ELD Co-taught English 11	English 12 and Longterm Success I or ELD Co-taught English 12
	Social Studies	History of the United States	**U.S. Government**	World History	—
	Science	Environmental Science	**Biology**	Chemistry or Science Elective	Science Elective or AP Science
	Math	**Algebra I** or Geometry	**Algebra I** or Geometry	Algebra II	Math Elective
Bridging **5th and 6th year in U.S. schools** *Target English Language Proficiency Level 4.1–4.5*	**English/ ELD**	English 9 and ELD IV or V and Longterm Success I or ELD Co-taught English 9	**English 10** and ELD V and Longterm Success I or **ELD Co-taught English 10**	English 11 and Longterm Success I or ELD Co-taught English 11	English 12 and Longterm Success I or ELD Co-taught English 12
	Social Studies	History of the United States	**U.S. Government**	World History	—
	Science	Environmental Science	**Biology**	Chemistry or Science Elective	Science Elective or AP Science
	Math	**Algebra I** or Geometry	**Algebra I** or Geometry	Algebra II	Math Elective
Long Term English Learner **More than 6 years in U.S. Schools**	**English/ ELD**	English 9 and Longterm Success I or ELD Co-taught English 9	**English 10** and Longterm Success I or II or **ELD Co-taught English 10**	English 11 and Longterm Success I or II or ELD Co-taught English 11	English 12 and Longterm Success I or II or ELD Co-taught English 12
	Social Studies	History of the United States	**U.S. Government**	World History	—
	Science	Environmental Science	**Biology**	Chemistry or Science Elective	Science Elective or AP Science
	Math	**Algebra I** or Geometry	**Algebra I** or Geometry	Algebra II	Math Elective

Health

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 to maintain or improve their own health and health others. These comprehensive skills-based Health Education 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, substance abuse prevention, family life and human sexuality,* safety and violence prevention, healthy eating, and disease prevention and control. Skills Based Health Education supports and promotes health enhancing behaviors for all students. The health skills embedded in the units include analyzing influences, accessing information, interpersonal communication, decision making, goal setting, self-management, and advocacy.

**The Family Life and Human Sexuality unit was developed in accordance with the standards and procedures established in Maryland State Regulation 13A.04.18.01. Students may be excused from this unit of the program upon written request from their parent or guardian. Appropriate alternate instruction will be provided.*

Health Graduation Requirement — 1.0 Credit*

- 0.5 credit in Health A (9th or 10th grade)
- 0.5 credit in Health B (11th or 12th grade)

L70 | **Health A** 0.5sem

This course is designed for students to learn and demonstrate health skills necessary to maintain or improve health and wellness. The health skills include analyzing influences on health behaviors, accessing valid information, interpersonal communication, decision making, goal setting, advocacy, and practicing health enhancing behaviors. Through these health skills, students acquire functional knowledge about the following core health concepts: substance abuse prevention, family life and human sexuality,* safety and violence prevention, healthy eating, and disease prevention and control.

L71 | **Health B** 0.5sem

This course will use the introductory instruction from Health A to expand on the development of skills, attitudes, and behaviors that will enable them to make decisions that promote healthy behaviors. Students will engage in inquiry and problem-solving approaches utilizing a developmentally appropriate progression of content related to health education concepts.

Prerequisite(s): *Health A*

L67 | **Introduction to Health Professions** 0.5sem

This course introduces students to professional health careers, medical terminology, and technology. Education and certification requirements for professional health careers are explored. Guest speakers provide work-based learning experiences.

Prerequisite(s): *Health A*

L75 | **Human Sexuality** 0.5sem

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.

Prerequisite(s): *Health A and Parental/Guardian Permission Form to be obtained from School Counseling*

L95 | **Drugs in Society** 0.5sem

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 is placed on the skills needed to identify the impact of family, peers, culture, media, and technology on drug use behaviors; knowing how to access valid drug prevention information, use interpersonal communication, decision-making, goal setting, and advocacy skills to apply personal health enhancing practices.

Prerequisite(s): *Health A*

Mathematics

After completing the required courses of Algebra 1 and Geometry, students may choose from a set of rigorous courses such as Algebra 2, Algebraic Applications, 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 — 4.0 Credits

- 1 credit in Algebra 1
- 1 credit in Geometry
- 2 mathematics elective credits (***Algebra 2*** for college completers)

Students are required to take a rigorous math course each of the four years the student is enrolled.

Required Assessments

To meet graduation requirements, all students must take the Maryland Comprehensive Assessment Program (MCAP) in Algebra 1.

D27 | **Algebra 1** [FY] 0.5/sem

D18 | **Algebra 1 (Daily)** [FY] 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 function families including linear, quadratic and exponential functions and equations, reasoning and modeling of all three functions including data analysis, modeling and critical analysis and understanding of these functions. Instructional emphasis is placed on connecting the multiple representations of functions and interpreting the representations through applications. Graphing calculator or software is required. Students will actively engage in rigorous mathematical activities to attain mastery of course standards.

| NCAA

D28 | **Geometry** [FY] 0.5/sem

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; translate geometric figures to an algebraic coordinate representation and algebraic models; and 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 rigorous mathematical activities to attain mastery of course standards. Graphing calculator or software is required.

Prerequisite: *Algebra 1*

| NCAA

D287 | **Honors Geometry** [FY] 0.5/sem

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; translate geometric figures to an algebraic coordinate representation and algebraic models; and 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 rigorous mathematical activities to attain mastery of course standards. Honors students will be introduced to advanced topics. Graphing calculator or software is required.

Prerequisite: *Algebra 1*

| NCAA

D290 | **Algebra 2** [FY] 0.5/sem

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. Graphing calculator or software is required. Students will actively engage in rigorous mathematical activities to attain mastery of course standards.

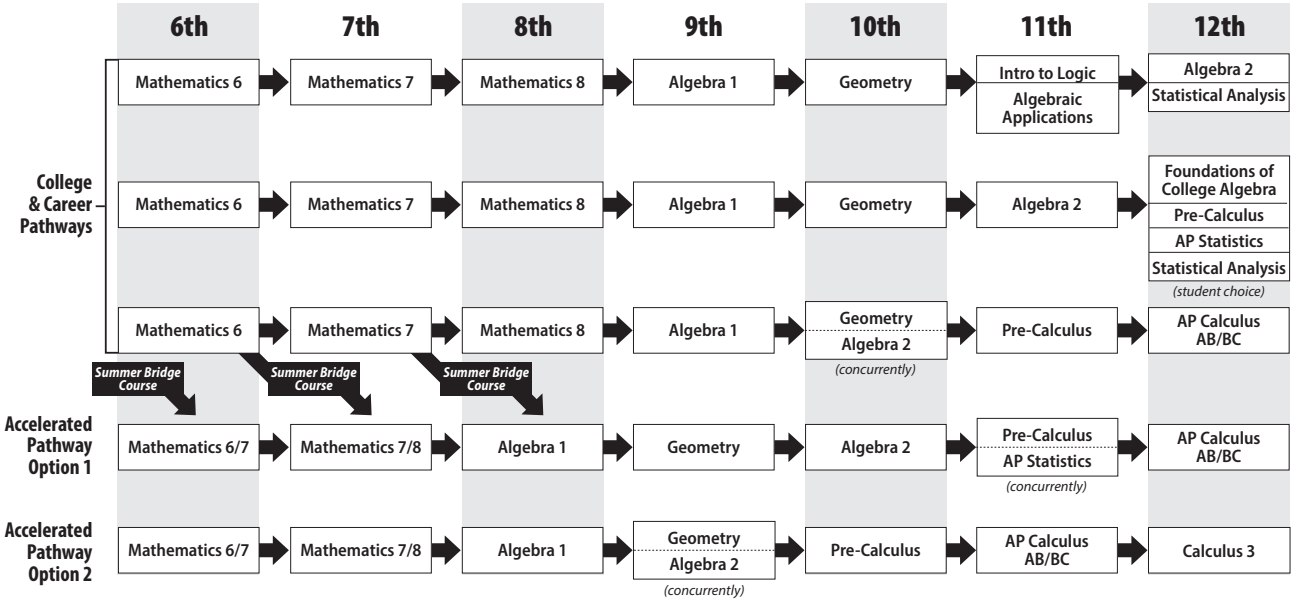
Prerequisite: *Algebra 1*

Recommended: *Geometry credit or concurrent enrollment in Geometry.*

| NCAA

AACPS Possible Math Course Pathways (Other sequences are possible based on student needs)

Other mathematics elective courses are available.



D296 | **Seminar: Algebra 2** [FY] 0.5sem (Elective)

Students receive intensive assistance in the concepts and skills learned currently in the Algebra 2 course. This course is recommended for students who require additional practice, guidance, and experience beyond those available in the standard Algebra 2 course.

Required: *Concurrent enrollment in Algebra 2.*

D297 | **Honors Algebra 2** [FY] 0.5/sem

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. Honors students will be introduced to advanced topics. Graphing calculator or software is required. Students will actively engage in rigorous mathematical activities to attain mastery of course standards.

Prerequisite: *Algebra 1 (C or better)*

Recommended: *Geometry credit or concurrent enrollment in Geometry.*

| NCAA

D41 | **Foundations of College Algebra** [FY] 0.5/sem

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. Graphing calculator or software is required.

Prerequisites: *Algebra 2*

| NCAA/DUAL (JDMAT1)

D80 | **ELD Transitional Math 9–12** 0.5/sem

High School ESOL Transitional Math is a math course to build background knowledge and foundational skills in mathematics for students with interrupted or limited formal education. Key mathematic concepts from grades 2 through Algebra including numbers, operations, decimals, fractions, ratios, percentages, number theory, integers, statistics, graphs, tables, and algebraic thinking are embedded with math language development and discourse instruction. Only English learners 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.

Note: *Can be taken for Transitional Math Elective Credit*

| NCAA

D81 | **Statistical Analysis: Making Inferences from Data** 0.5sem

Students will develop an understanding of statistics through real-world application and hands-on learning via projects, experiments, and technology explorations. This is an experiential course where students will collect, organize, and analyze data from experiments and sample surveys to make inferences about a larger population or process.

Recommended: *Algebra 2*

| NCAA

D82 | **Statistical Analysis: Using Probability to Make Decisions** 0.5sem

Probability may be known as the science of uncertainty, but with an understanding of the nature of chance and variation in the real world, students can make sense of seemingly random phenomenon. Through exploration, simulation and play, students will formulate rules and develop models to determine the probability of specific events and outcomes and use their understanding of probability to make decisions and predictions.

Recommended: *Algebra 2*

| NCAA

D84 | **Introduction to Logic: Networks and Algorithms** 0.5sem

Develop deeper thinking and reasoning skills through Encryption Algorithms, Cryptography, and Conversion of Bases and by exploring logic puzzles and games.

Prerequisite(s): *Algebra 1 & Geometry*

| NCAA

D01 | **Algebraic Applications—Daily Living** 0.5sem

Building on their understanding of linear and exponential relationships and systems of equations, students will learn how credit cards and student loans work, how money works. Students will develop a solid foundation of money related topics including budgeting, taxes, credit cards, saving, and investing opportunities.

Prerequisites: *Algebra 1*

| NCAA

D02 | **Algebraic Applications — Life & Business Planning** 0.5sem

Building on function relationships explored in Algebra 2, in this course students will develop a solid understanding about how such topics as student loans, car loans, mortgages, the stock market, investing, operating a business and more are entrenched in mathematics.

Recommended: *Algebra 2*

| NCAA

D517 | **Honors Pre-Calculus** [FY] 0.5/sem

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 or software required.

Prerequisite(s): *Algebra 2*

| NCAA/DUAL (JD5100)

D528 | **AP Pre-Calculus** [FY] 0.5/sem

This college level course integrates the study of trigonometry, analytic geometry, and advanced algebraic topics into a logical approach to the solution of real-world problems, including advanced topics. Students who successfully complete this course will be prepared for the AP Pre-Calculus test and may be awarded up to one semester of college credit with a successful score. This course is a prerequisite for Advanced Placement Calculus. Graphing calculator required. There will be no seminar for this course.

Prerequisite(s): *Honors Algebra 2*

| NCAA

D588 | **AP Calculus AB** [FY] 0.5/sem

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.

Prerequisite(s): *Pre-Calculus*

| NCAA

D586 | **Seminar: AP Calculus AB** [FY] 0.5sem (Elective)

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.

Required: *Concurrent enrollment in AP Calculus AB*

D598 | **AP Calculus BC** [FY] 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.

Prerequisite(s): *AP Calculus AB*

| NCAA/DUAL (JD5980)

D608 | **AP Calculus AB and BC Combined** [FY] 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.

Prerequisite: *Honors Pre-Calculus (C or better)*

| NCAA

D315 | **Adv. Linear Algebra** [FY] 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.

Prerequisite(s): *AP Calculus AB/BC credit. This course is in the hybrid learning format.*

| NCAA/DUAL (JD3153)

D628 | **AP Statistics** [FY] 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 or software required. For STEM students, this course may be offered as a hybrid.

Prerequisite(s): *Algebra 2*

| NCAA

D626 | **Seminar: AP Statistics** [FY] 0.5sem (Elective)

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.

Required: *Concurrent enrollment in AP Statistics.*

D63 | **Adv. Calculus 3** [FY] 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.

Prerequisite(s): *AP Calculus AB/BC credit. This course is in the hybrid learning format.*

| NCAA/DUAL (JD6353)

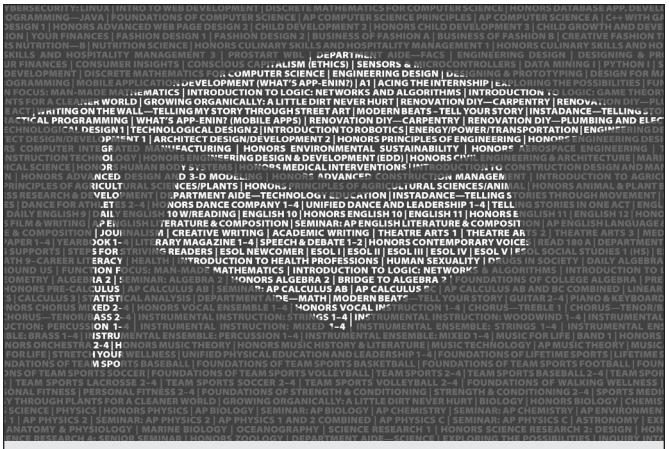
X40 | **PSAT/SAT Prep (English & Mathematics)** 0.5sem

Students in grades 10-12 prepare for the PSAT and SAT by developing and applying strategies to strengthen their mathematical, reading and writing 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.

Recommended: Geometry and Algebra 2

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.



If you have questions about any of the courses or programs described in this book, contact your School Counselor.

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 their 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 second through fourth 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 — 1.0 Credit

All Music courses meet the Fine Arts requirement. Additional fine arts courses can be found in the Art, Dance, and English (Theater Arts), program sections.

F09 | **Guitar 1** 0.5/sem

F10 | **Guitar 2–4** 0.5/sem

This is a performance emphasis course with acoustic guitar as the primary medium. Comprehensive activities in reading, creating, and listening to music are included. Students will perform a variety of music literature and styles in ensemble and solo performance. The course title indicates year enrolled.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F13 | **Piano & Keyboard 1** 0.5/sem

F14 | **Piano & Keyboard 2–4** 0.5/sem

This is a performance emphasis course that includes additional comprehensive activities in reading, creating, and listening to music as well as developing an understanding of history, vocabulary, structure, and symbols. Students will play a wide repertoire of keyboard music literature alone and in ensembles. Opportunities for public solo or group performance will be available. The course title indicates year enrolled.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

| **DUAL** (JF1300) Piano & Keyboard 1

| **DUAL** (JF1400) Piano & Keyboard 2–4

F21 | **Honors Chorus Mixed 1–4** [FY] 0.5/sem

This course will include individual concepts of vocal production as well as choral techniques appropriate for a large ensemble. A wide repertoire of choral music and experiences will be used for the development of comprehensive musicianship. The course designation indicates year enrolled. Students will be expected to advance to the next appropriate level of ability in Chorus and Vocal Instruction. 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. The course designation indicates year enrolled.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F24 | **Honors Vocal Ensemble 1–4** [FY] 0.5/sem

This course emphasizes correct vocal production and the choral techniques of ensemble singing. Comprehensive musicianship will be emphasized through 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.

F25 | **Honors Vocal Instruction 1–4** 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.

F28 | **Honors Chorus—Treble 1–4** [FY] 0.5/sem

F29 | **Honors Chorus—Tenor/Bass 1–4** [FY] 0.5/sem

This course will stress correct vocal production and techniques. Comprehensive musicianship will be emphasized through a study of varied repertoire appropriate to treble 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.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F50 | **Instrumental Instruction: Strings 1–4** 0.5/sem

F51 | **Instrumental Instruction: Woodwind 1–4** 0.5/sem

F52 | **Instrumental Instruction: Brass 1–4** 0.5/sem

F53 | **Instrumental Instruction: Percussion 1–4** 0.5/sem

F54 | **Instrumental Instruction: Mixed 1–4** 0.5/sem

Small group instruction is provided for students desiring to acquire skill in playing an instrument. 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.

F60 | **Instrumental Ensemble: Strings 1–4** 0.5/sem

F61 | **Instrumental Ensemble: Woodwind 1–4** 0.5/sem

F62 | **Instrumental Ensemble: Brass 1–4** 0.5/sem

F64 | **Instrumental Ensemble: Mixed 1–4** 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.

F77 | **Honors Instrumental Ensemble: Percussion 1–4** 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.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F65 | **Music for Life** 0.5/sem

This course focuses upon the use and value of music in people's lives. It encourages students to view music in a social context rather than as abstract Information to be learned for its own sake. It presents music as a natural and essential ingredient of one's own life and of human life in all cultures. The course shows how people express themselves through music. Finally, Music for Life exemplifies how music is a common denominator for the human experience across the globe.

F71 | **Honors Band 1–4** [FY] 0.5/sem

This course provides an opportunity for students who have reached the necessary degree of maturity in playing a wind or percussion instrument to perform in a group and as a soloist. Development of comprehensive musicianship will be emphasized through a wide repertoire of original band 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. 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.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F74 | **Jazz Ensemble 1–4** [FY] 0.5/sem

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.

F76 | **Honors Orchestra 1-4** [FY] 0.5/sem

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.

Prerequisite(s): *Level 1 is open to all students. Levels 2–4 require completion of the previous course in the series or permission of the instructor.*

F80 | **Honors Music Theory** 0.5/sem

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.

F81 | **Honors Music History & Literature** 0.5/sem

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.

F82 | **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.

F83 | **Music Technology 1** 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.

F84 | **AP Music Theory** [FY] 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.

Prerequisite(s): Prior permission from the teacher.

F88 | **Music Technology 2** 0.5sem

Music Technology II builds and expands on the skills taught in Music Technology I and functions as an in-depth, hands-on experience in modern music production. Students in the course will be challenged to compose and produce their own music for a variety of commercial music applications and focus on music composition as an important component in modern music production. Students will be challenged to create and compose their own music for commercials, advertisements, films, jingles, video game soundtracks, musical accompaniment tracks and independent artist musical release(s).

Prerequisite: *Music Technology I, Honors Music Theory, AP Music Theory, or permission of the instructor.*

F34| **Unified Music & Leadership** 0.5sem

This course will allow students with and without disabilities to focus on fundamental music concepts and skills in a collaborative and cooperative environment. Peer leaders will be recruited to explore leadership traits and characteristics, communication and listening skills, group work and critical thinking skills in order to provide support in an inclusive environment.

F87 | **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.

Physical Education

Physical Education classes provide opportunities for all 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. Physical Education is an essential component in the education of the whole child, linking cognitive knowledge to physical activity and social interaction.

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

All students are expected to wear appropriate attire during physical education classes for the purpose of ensuring the safety and hygiene of each participant.

Phys. Ed. Graduation Requirements —1.0 Credit

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

L82 | **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. Fitness components are embedded throughout all instruction along with activities which align to each of the Physical Education content standards. Students are challenged to improve their own personal fitness levels through purposeful learning activities. Students will be afforded the opportunity to participate in a variety of activities which can be pursued during high school and throughout their lifetime.

L04 | **Foundations of Stretch Your Wellness** 0.5sem

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, 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 lifetime of wellness.

L09 | **Unified Physical Education and Leadership 1–4** 0.5/sem

This course will allow students with and without disabilities to gain knowledge, experience, and skills in recreation sports, leisure activities, team/individual sports, fitness, and dance in a collaborative and cooperative environment. All students will explore leadership characteristics, communication and listening skills, group work, and critical thinking skills in order to provide support in an inclusive environment.

L14 | **Foundations of Lifetime Sports** 0.5/sem

This course provides students with knowledge, experience, and an opportunity to develop skills in more than one recreational sport or outdoor pursuit (such as spike ball, ladder golf, corn hole, table tennis, frisbee golf, Kan Jam, bocce ball, etc.).

L15 | **Lifetime Sports 2–4** 0.5/sem

Lifetime Sports 2, 3, & 4 extends students' experiences in recreational sports and outdoor games they can pursue throughout life.. Students increase knowledge and skill proficiency in these sports and activities.

L37 | **Foundations of Team Sports** 0.5/sem

Students will learn rules, terms, historical background, and basic skills for a variety of sports. This course incorporates the sports education model, allowing the students to explore leadership, communication, and teamwork opportunities. The student will be able to understand team strategy in a competitive situation.

L37--1 | **Foundations of Team Sports Baseball** 0.5sem

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.

L37--2 | **Foundations of Team Sports Basketball** 0.5sem

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.

L37--3 | **Foundations of Team Sports Football** 0.5sem

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.

L37--4 | **Foundations of Team Sports Lacrosse** 0.5sem

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.

L37--5 | **Foundations of Team Sports Soccer** 0.5sem

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.

| Dual (JL3700)

L37--6 | **Foundations of Team Sports Volleyball** 0.5sem

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.

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 increased depth of knowledge in team strategies. Students will increase their experiences in leadership, communication, and teamwork through the sports education model with a concentration on coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

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 increased depth of knowledge in team strategies. Students will increase their experience in teamwork through competitive situations in addition to experiencing coaching and officiating opportunities.

L51 | **Foundations of Walking Wellness** 0.5sem

This course is an introduction to the lifetime wellness activity of walking. Students are provided with an understanding of the importance that nutrition and exercise have on the pursuit of healthy living. Various walking activities are embedded throughout the course which engage the learner and increase participation.

L52 | **Walking Wellness 2–4** 0.5/sem

This course extends the students' opportunity for participating in the lifetime wellness activity of walking. It provides students with nutritional information consistent with healthy living and teaches them to set goals that require a commitment to physical fitness in pursuit of a healthy lifestyle.

L56 | **Foundations of Personal Fitness** 0.5sem

This course exposes students to a variety of fitness options including Cardiorespiratory Fitness, Resistance Training and Flexibility. Students will have the opportunity to explore nutrition options to help them make healthy lifestyle decisions. By completing this course, students will have a better comfort level when self-selecting fitness options at workout facilities outside of school.

| Dual (JL5600)

L57 | **Personal Fitness 2–4** 0.5/sem

This course extends the students' opportunity to explore a variety of fitness options including Cardiorespiratory Fitness, Resistance Training, and Flexibility. Students will have the opportunity to explore nutrition options to help them make healthy lifestyle decisions. By completing this course, students will have a better comfort level when self-selecting fitness options at workout facilities outside of school.

L58 | **Foundations of Strength & Conditioning** 0.5/sem

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 (JL5801)

L59 | **Strength & Conditioning 2–4** 0.5/sem

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.

L72 | **Sports Medicine** 0.5sem

The course is designed for students interested in fields such as athletic training, physical therapy, medicine, fitness, exercise physiology, kinesiology, nutrition, and other sports-medicine related fields. This class includes classroom work as well as hands-on application in order to provide students with an avenue to explore these fields. Through these connections, students will understand the importance that exercise, nutrition, treatment modalities, and rehabilitation play in athletic health. Students will study basic anatomy and the psychological impact of athletic injuries, along with assessment and treatment techniques as they apply to athletic injuries.

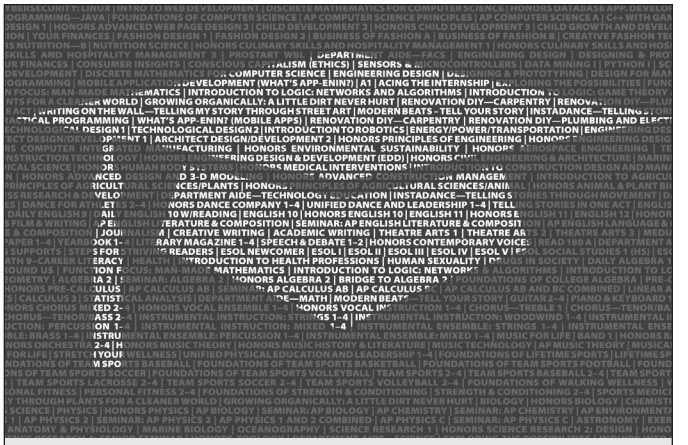
L19 | **Stretch, Flow, and Restore 2–4** 0.5sem

This course is an extension of Foundations of Stretch Your Wellness. Students will build upon their knowledge of the core yogic principles, components of mindfulness, and connections to how yoga and mindfulness promote lifelong wellness to synthesize the differences between Restorative yoga and Integrative yoga as it relates to real life simulation opportunities. Through the analysis of specific yogic styles and unique mindfulness practices students will synthesize the differences between Vinyasa Flow and Yoga Nidra as it relates to real life simulation opportunities.

Prerequisite: *Foundations of Stretch Your Wellness*

L87 | **Department Aide—HPED** No credit

The Health, Physical Education and Dance Aide course offers students the opportunity to assist instructors in preparing and organizing course curricula. Students may provide tutorial or instructional assistance to other students.



If you have questions about any of the courses or programs described in this book, contact your School Counselor.

Science

Scientific literacy has become a necessity. Everyone needs to use scientific information to make choices that arise in every day life. In the workplace, jobs demand advanced skills, requiring people to learn, reason, think critically, make decisions, and solve problems.

Students who have an MCAP ELA 7 score of 3 or higher assessments may enroll in Honors Biology in grade 9. All other students should enroll in Environmental Science in grade 9 followed by enrollment in Standard or Honors Biology in grade 10. Both pathways require students to take a Life Science End of Course Assessment (LS MISA) at the end of their Biology course.

In 10th grade, students who have completed Honors Biology will take Honors/Standard Chemistry or a science elective.

In 11th grade, 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.

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 virtual dissections.

Science Graduation Requirements — 3.0 Credits

- 1 credit in Life Science of a MISA aligned course
- 1 credit in Physical Science
- 1 credit in Earth/Space Science or a course with the topics of Earth/Space Science integrated

Required Assessments

To meet graduation requirements, all students must take the Life Science Maryland Integrated Science Assessment (LS MISA). This assessment is given at the end of the Biology and Systems Science courses.

In alignment with Maryland State Department of Education regulations, students shall take the Maryland Comprehensive End of Course (EOC) Assessment for Biology. For students entering the ninth grade in the 2023–2024 school year and beyond, the EOC assessment shall account for 20 percent of the student's final grade in Biology. Students will receive the full 1.0 course credit at the end of the course provided they earn a passing grade (60%). Course credit will no longer be awarded at the end of the semester and will not appear on the semester report card. The final course grade will appear on the transcript as a 1.0 credit at the end of the school year after students take the assessment and the results are factored into the course grade.

The final grade will be automatically calculated by AACPS and shared in the PowerSchool portal and report card as follows:

Marking Period				Assessment
First	Second	Third	Fourth	End of Course
20%	20%	20%	20%	20%

High School Science Graduation Requirements (MSDE COMAR)

In order to fulfill the MSDE COMAR science graduation requirement, students must earn ***1 full credit*** in each of the following three science domains (3 credits total):

Life Science (LS) Course

Biology (1 credit)
Students must pass Biology to graduate. They will take the Life Science MISA End of Course (EOC) Exam at the end of Biology, which will count 20% of their overall grade in the course.

Physical Science (PS) Courses

AP Chemistry (1 credit)
Exercise Science (0.5 credit)
Forensic Science 1 (0.5 credit)
Forensic Science 2 (0.5 credit)
Human Anatomy & Physiology (0.5 credit)

Earth Space Science (ESS) Courses

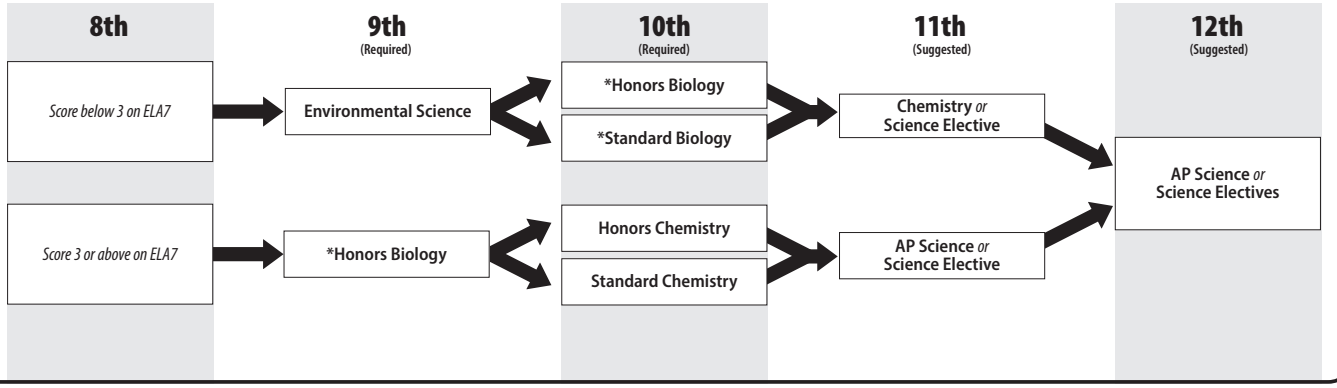
AP Biology (1 credit)
AP Environmental Science (1 credit)
Marine Biology (0.5 credit)
Oceanography (0.5 credit)
Environmental Science (1 credit)

The following courses can fulfill either a (PS) or a (ESS) credit

Chemistry (1 credit)
Physics (1 credit)
Astronomy (0.5 credit)
Earth/Space Science (1 credit)
Honors Zoology (1 credit)
AP Physics (1 credit)
ESOL Science 1 (0.5 credit)
ESOL Science 2 (0.5 credit)

AACPS Recommended Science Course Pathways (After grade 10, courses are chosen based on student needs and interests.)

The Life Science MISA is administered at the end of the Biology course.*



C67 | **Environmental Science** [FY] 0.5/sem

Environmental Science is a rigorous study of the environment, ecology, natural resources, and sustainability. Students enrolling in this course will develop the foundational skills necessary to grow as young scientists while experiencing hands-on, minds-on lessons, labs, and collaborative activities. All coursework is grounded in Next Generation Science Standards for Earth and Space with a focus on the Science and Engineering Practices aligned to the content.

| NCAA

C260 | **Biology** [FY] 0.5/sem

C264 | **Biology (Daily)** [FY] 0.5 Biology & 0.5 Elective/sem

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. All coursework is aligned to Next Generation Science Standards (NGSS) for life sciences. Upon completion of their biology course, all students must take a Life Science End of Course Assessment (LS MISA) to meet state graduation requirements.

| NCAA

C267 | **Honors Biology** [FY] 0.5/sem

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. All coursework is aligned to Next Generation Science Standards (NGSS) for life sciences. Upon completion of their biology course, all students must take a Life Science End of Course Assessment (LS MISA) to meet state graduation requirements. 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.

Prerequisite(s): *ELA 7 score 3 or higher*

| NCAA

C450 | **Chemistry** [FY] 0.5/sem

Chemistry courses involve studying the composition, properties, and reactions of substances. Students learn about the structure and function of atoms and states of matter in the Universe. Throughout their coursework, students use mathematics practices and computation to analyze chemical processes. Each Chemistry unit ends with a project to allow students to apply their learning to how chemistry is used in the real world.

Prerequisite(s): *Algebra 1 or concurrent enrollment in Algebra 1 and Participation in LS MISA*

| NCAA

C457 | **Honors Chemistry** [FY] 0.5/sem

Chemistry courses involve studying the composition, properties, and reactions of substances. Students learn about the structure and function of atoms and states of matter in the Universe. Throughout their coursework, students use mathematics practices and computation to analyze chemical processes. 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. Additionally, students enrolled in Honors Chemistry complete a research project.

Prerequisite(s): *Algebra 1 or concurrent enrollment in Algebra 1 and Biology or Honors Biology*

| NCAA

C30 | **Earth/Space Systems Science** [FY] 0.5/sem

Earth and Space Systems Science is a study of Earth, a complex and dynamic 4.6-billion-year-old system of rock, water, air, and life. Students experience labs, hands-on learning, collaboration and content aligned to Next Generation Science Standards for Earth and Space Science throughout the course.

Prerequisite(s): *Participation in LS MISA*

| NCAA

C62 | **ELD Science I (Newcomers Only)** 0.5sem

This redeveloped course is for Newcomer English Learners that have been identified through the WIDA Screener or ACCESS for ELLs as being in the "entering" phase of English language development. The goal of this specially designed course is to provide the pre-requisite background knowledge, skills, and vocabulary that English Learners need to be successful in Environmental Science, Biology, and LS MISA. The course should be offered concurrently with ELD I only for English Learners who have experienced prolonged educational interruptions. It is recommended that it be coupled with a semester of ELD Science II.

Note: *Can be taken for Science Elective Credit. Please reference the ELD section for suggested course placement by English proficiency and time in U.S. schools.*

C63 | **ELD Science II** 0.5sem

ESOL Science II is a continuation of Newcomer ELD Science I course. Through participation in this one semester course, students will experience lessons that practice science and engineering skills while exposing them to rigorous scientific vocabulary and concepts, building upon the educational framework they experienced in ELD Science I.

Note: *Can be taken for Science Elective Credit. Please reference the ELD section for suggested course placement by English proficiency and time in U.S. schools.*

C550 | **Physics** [FY] 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 science equipment 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.

Prerequisite(s): *Algebra 1 and Participation in LS MISA*

| NCAA

C557 | **Honors Physics** [FY] 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 science equipment 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.

Prerequisite(s): *Algebra 1 and Participation in LS MISA*

| NCAA

C428 | **AP Biology** [FY] 0.5/sem

AP Biology 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.

Prerequisite(s): *Biology (Honors Biology highly recommended) and Chemistry*

| NCAA

C426 | **Seminar: AP Biology** [FY] 0.5sem (Elective)

Students focus on enhancing the science skills and concepts that will support success in AP Biology. This course is for students who need additional practice in scientific inquiry and mathematics or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisite(s): *Concurrent enrollment in the related AP science course*

C498 | **AP Chemistry** [FY] 0.5/sem

AP Chemistry is the equivalent of a general chemistry course taken the first year of college. Students learn chemical principles and use mathematics to solve chemistry problems. AP Chemistry prepares students for the Advanced Placement Test in chemistry and the opportunity to earn college credit. Successful completion of Honors Chemistry is highly recommended prior to enrolling in AP Chemistry but is not required.

Prerequisite(s): *Successful completion of Chemistry*

| NCAA

C496 | **Seminar: AP Chemistry** [FY] 0.5sem (Elective)

Students focus on enhancing the science skills and concepts that will support success in AP Chemistry. This course is for students who need additional practice scientific inquiry and mathematics or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisite(s): *Concurrent enrollment in the related AP science course*

C668 | **AP Environmental Science** [FY] 0.5/sem

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.

Prerequisite(s): *Biology and Chemistry. Chemistry may be taken concurrently.*

| NCAA

C568 | **AP Physics 1** [FY] 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. 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.

Prerequisite(s): *Algebra 2 or concurrent enrollment in Algebra 2*

| NCAA

C566 | **Seminar: AP Physics 1** [FY] 0.5sem (Elective)

Students focus on enhancing the science skills and concepts that will support success in AP Physics. This course is for students who need additional practice in scientific inquiry and mathematics or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisite(s): *Concurrent enrollment in the related AP science course*

C578 | **AP Physics 2** [FY] 0.5/sem

Students learn the principles of physics equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics. This course prepares students for the Advanced Placement Test in AP Physics 2 and the opportunity to earn college credit.

Prerequisite(s): *AP Physics 1 and Pre-Calculus or concurrent enrollment in Pre-Calculus*

| NCAA

C576 | **Seminar: AP Physics 2** [FY] 0.5sem (Elective)

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 scientific inquiry and mathematics or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisite(s): *Concurrent enrollment in the related AP science course*

C70 | **AP Physics 1 and 2 Combined** [FY] 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. AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

Prerequisite(s): *Successful completion of or concurrent enrollment in Pre-Calculus.*

| NCAA

C598 | **AP Physics C** [FY] 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.

Prerequisite(s): *Calculus or concurrent enrollment in Calculus*

| NCAA

C596 | **Seminar: AP Physics C** [FY] 0.5sem (Elective)

Students focus on enhancing the science skills and concepts that will support success in AP Physics. This course is for students who need additional practice in scientific inquiry and mathematics or for students taking an AP Science course for the first time. Students take the seminar course that corresponds to their specific AP course.

Prerequisite(s): *Concurrent enrollment in the related AP science course*

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.

Prerequisite(s): *Participation in LS MISA*

| NCAA

C25 | **Exercise Science** 0.5sem

In this course, students use kinesthetic and exercise testing mechanisms to monitor, evaluate and apply cause and effect relationships. They study physical activity, body systems, nutrition, biomechanics, social physiological, and motor learning principles. Students will assess the advantages and disadvantages of physical activity on the body's development and performance and will partake in a variety of hands-on and self-exploratory tests. Strategies integral to this course include applying real-world exercise experiences and issues that plague individuals across age spectrums, working collaboratively in groups for multidisciplinary project-based learning, and providing connections across contents (physical education, health, and science).

Prerequisite(s): *Human Anatomy and Physiology*

C33 | **Forensic Science 1** 0.5sem

Students use the principles of science, technology, and mathematics to investigate crime scenes and collect/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 upperclassmen.

Prerequisite(s): *Participation in LS MISA*

| NCAA

C34 | **Forensic Science 2** (0.5 sem)

Forensic Science II is a continuation of the skills and content learned in Forensic Science 1. Students use the principles of science, technology, and mathematics to investigate crime scenes and collect/analyze physical evidence. This course builds on skills and experiences of Forensic Science to deepen students' understanding of the discipline. Because of the mature nature of crime scene subject matter, this course is recommended for upperclassmen.

Prerequisite(s): *Participation in LS MISA and successful completion of Forensic Science 1*

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 to help students understand how these systems interact and maintain homeostasis. In this 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.

Prerequisite(s): *Participation in LS MISA*

| NCAA/DUAL (JC4000)

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.

Prerequisite(s): *Participation in LS MISA*

| NCAA

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.

Prerequisite(s): *Participation in LS MISA*

| NCAA

C50 | **Science Research** [FY] 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.

| NCAA

C41 | **Honors Zoology** [FY] 0.5/sem

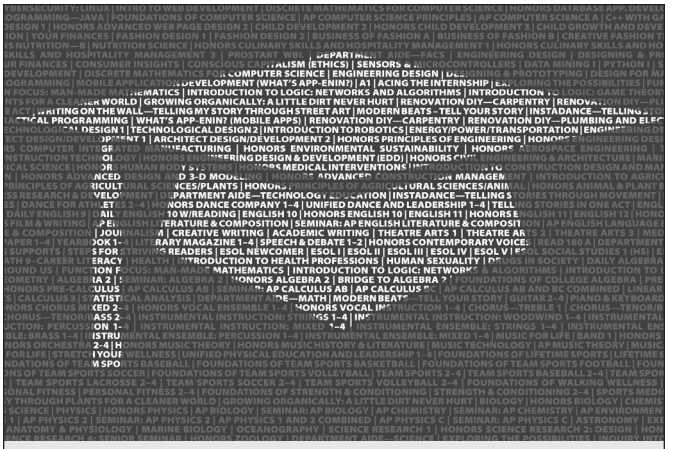
Zoology courses provide students with an understanding of animals, the niche they occupy in their environment or habitat, their life cycles, and their evolutionary relationships to other organisms. In this course, students study the organisms of the animal kingdom. Students study animal systems through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

Prerequisite(s): *Participation in LS MISA*

| NCAA

C87 | **Department Aide—Science** No Credit

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



If you have questions about any of the courses or programs described in this book, contact your School Counselor.

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. Students learn to utilize inquiry 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 — 3.0 Credits

- History of the United States or AP United States History
- World History or AP World History: Modern
- U.S. Government or AP U.S. Government and Politics

Required Assessments

All students must take either the MCAP American Government or AP US Government and Politics assessment to meet state graduation requirements.

In alignment with Maryland State Department of Education regulations, students shall take the Maryland Comprehensive End of Course (EOC) Assessment for US Government. For students entering the ninth grade in the 2023–2024 school year and beyond, the EOC assessment shall account for 20 percent of the student's final grade in US Government. Students will receive the full 1.0 course credit at the end of the course provided they earn a passing grade (60%). Course credit will no longer be awarded at the end of the semester and will not appear on the semester report card. The final course grade will appear on the transcript as a 1.0 credit at the end of the school year after students take the assessment and the results are factored into the course grade.

The final grade will be automatically calculated by AACPS and shared in the PowerSchool portal and report card as follows:

· 1st MP: 20% 2nd MP: 20% 3rd MP: 20%
· 4th MP: 20% EOC: 20%

B01 | **Maryland History** 0.5sem

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.

| NCAA

B11 | **Honors Humanities** 0.5sem

Students will study art, literature, music, and philosophy from Ancient Times 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.

| NCAA

B201 | **History of the US** [FY] 0.5/sem

Students will concentrate on the historical period from the late 1800's to the present. Students will engage in inquiry, problem solving and critical thinking skills to identify major issues of each time period and analyze their importance to the United States today. Topics of special interest will include the social, political, and economic shifts that have occurred for groups including Indigenous Peoples, women, African Americans, Asian Americans, Hispanic Americans, religious minorities, LGBTQ+ individuals and Americans with disabilities. Students will investigate these shifts through the World Wars, the Depression, Civil Rights Movements, the Cold War, and in Post-9/11 America. In this course, students will be expected to read, analyze, and draw conclusions from primary source documents.

| NCAA

B207 | **Honors History of the US** [FY] 0.5/sem

Students will concentrate on the historical period from the late 1800's to the present. Students will engage in inquiry, problem solving and critical thinking skills to identify major issues of each time period and analyze their importance to the United States today. Topics of special interest will include the social, political, and economic shifts that have occurred for groups including Indigenous Peoples, women, African Americans, Asian Americans, Hispanic Americans, religious minorities, LGBTQ+ individuals and Americans with disabilities. Students will investigate these shifts through the World Wars, the Depression, Civil Rights Movements, the Cold War, and in Post-9/11 America. In this course, students will be expected to read, analyze, and draw conclusions from primary source documents.

For BMAH and STEM students, this course may be offered as a hybrid.

| NCAA

B290 | **World History** [FY] 0.5/sem

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.

| NCAA

B297 | **Honors World History** [FY] 0.5/sem

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.
| NCAA

B318 | **AP World History: Modern** [FY] 0.5/sem

Students will develop greater understanding of the evolution of global processes and interaction through their study of world history from circa 1200 CE 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: Modern. 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.
| NCAA

B316 | **Seminar: AP World History** [FY] 0.5sem (Elective)

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.

B328 | **AP U.S. Government & Politics** [FY] 0.5/sem

This course provides students with an analytical perspective on government and politics 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. 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 10 hours toward their service-learning graduation requirement.
| NCAA

B326 | **Seminar: AP U.S. Government & Politics** [FY] 0.5sem (Elective)

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.

B380 | **US Government** [FY] 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 10 hours toward their service-learning graduation requirement.
| NCAA

B387 | **Honors US Government** [FY] 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 10 hours toward their service-learning graduation requirement. For STEM students, this course may be offered as a hybrid.
| NCAA

B41 | **Honors Social Issues** 0.5sem

Students will identify, analyze, and articulate an informed response to 21st century issues and problems that impact global societies, and are "shared" by groups of people. In order to use academic and civic dialogue to respond, students will need to locate and examine the current events, news media publications, and data sets related to a variety of contemporary topics and social issues. Students will be required to use a framework of academic research, sociological investigation, and civic action to engage with and respond to social issues, developing critical thinking, communication, and civil public discourse skills.
| NCAA/DUAL (JB4100)

B42 | **AP Comparative Government & Politics** [FY] 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

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

B45 | **Criminal Justice** 0.5sem

In this course, students will investigate issues of crime and justice, the police, the courts, corrections, and juvenile justice. Students will critically analyze the historical impact and future of the criminal justice system in the United States of America. This course is recommended for students interested in exploring government, law, and leadership in detail.

| NCAA

B498 | **AP European History** [FY] 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 global studies in detail.

Recommended: *Students who register for this course are encouraged to concurrently enroll in AP Art History in order to strengthen conceptual understanding.*

| NCAA

B496 | **Seminar: AP European History** [FY] 0.5sem (Elective)

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.

B508 | **AP US History** [FY] 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

B507| **Honors Historical Inquiry** [FY] 0.5/sem

In this course, students will extend their knowledge and understanding of the key themes in the AP US History course. Students will also refine their historical thinking skills through a variety of research projects, document-based activities, simulations, and debates. This course will prepare students for both the rigor of the disciplinary literacy portions of AP US History exam, as well as subsequent AP History courses. Historical Inquiry is mandatory for high school freshman taking the AP US History course.

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.

| CTE/NCAA

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.

| CTE/NCAA

B56 | **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

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 (JB5900)

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.

Prerequisite(s): *General Psychology*

| NCAA

B61 | **AP Psychology** [FY] 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

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 (JB6200)

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

B70 | **Honors International Studies** 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 (JB7000)

B718 | **AP Human Geography** [FY] 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

B798 | **AP African American Studies** [FY] 0.5/sem

AP African American Studies is an interdisciplinary course that examines the diversity of African American experiences through direct encounters with authentic and varied sources. Students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. Given the interdisciplinary character of African American studies, students in the course will develop skills across multiple fields, with an emphasis on developing historical, literary, visual, and data analysis skills. This course foregrounds a study of the diversity of Black communities in the United States within the broader context of Africa and the African diaspora.

| NCAA

B716 | **Seminar: AP Human Geography** [FY] 0.5sem (Elective)

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

B75 | **Honors Women's History** 0.5sem

Students will examine the changing roles of women in United States history. They will analyze the social, 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 (JB7500)

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 (JB7700)

E96 | ELD **Social Studies 1 (HS)** [FY] 0.5/sem

ELD Social Studies 1 is a content-based language development course for students new to the United States. Students will become familiar with the language and content of geography, history, culture, and government of the United States. English learners will develop the language and background knowledge essential for their equitable participation in U.S. History and Government courses. This course provides an opportunity to build the capacity of immigrant students to draw on their unique international experiences in order to foster civic participation their new country. This course is most appropriate for students also enrolled in the ELD I course.

Note: *Can be taken for Social Studies Elective Credit*

B74 | **LGBTQ+ Studies** 0.5sem

This course is an interdisciplinary exploration of the historical emergence and construction of Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ+) history and culture. The course is designed for all students interested in learning more about the LGBTQ+ community and its history. The course will investigate LGBTQ+ History in the United States with a large focus on the sociopolitical aspects of history as an avenue to apply disciplinary literacy skills. Students will engage in activities that will further develop important critical thinking and inquiry skills.

B78 | **African American Studies in Anne Arundel County** 0.5sem

This course will investigate African American History in Anne Arundel County. There will be a focus on the social, political, and economic impacts of individual's and events in Anne Arundel County history while applying disciplinary literacy skills. Students will engage in choice activities that build their knowledge of the content while also developing important reading, writing and critical thinking skills.

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.

World Languages

The AACPS World Languages program strives to educate and motivate students to become global citizens in an increasingly complex and changing world through the study of languages and cultures other than their own. The goal of the AACPS world language program is to prepare students to participate in a multilingual society by communicating with other people of diverse backgrounds. Students will gain a deeper understanding of their own culture and the cultures of others to gain new perspectives, increase self-awareness, and to cultivate curiosity that develops the capacity to live and work with people of diverse backgrounds.

Note—Language offerings vary at each school.

World Languages Graduation Requirements—

Students must be enrolled and successfully pass a minimum of 2 credits of the same language of study. (Credits earned do not have to be consecutive.)

Students must enroll and successfully complete a *minimum* of two credits of the same language of study. The World Language program strongly recommends that students go beyond the minimum language requirement as communication skills are highly regarded by employers and institutions of higher learning alike. The ability to communicate in a language other than English is a valuable and marketable skill in our global society. Additionally, students who continue their studies and meet requirements of a qualifying score on the AP or IB level exams may be awarded the MSDE Seal of Biliteracy.

E01 | **American Sign Language 1** [FY] 0.5/sem

Designed to introduce students to the basics of American Sign Language and culture of the deaf community and others who use sign language as a means of communication. Emphasis will be placed on the development of the students' receptive and expressive skills. Students will learn to introduce themselves, provide biographical information, talk about likes and dislikes, describe their families, their school day, their environment, and lifestyles. Students communicate in the target language through reading, listening, speaking and writing. The proficiency target is novice high.

| NCAA/DUAL (JE0101)

E02 | **American Sign Language 2** [FY] 0.5/sem

Designed to extend students experience with American Sign Language and culture of the deaf community and others who use sign language as a means of communication. Students communicate on a variety of topics pertaining to pop culture, the impact of technology in our daily lives, travel, celebrations, rites of passage, and sharing our stories. The proficiency target is intermediate low. Emphasis will continue to be placed on the development of the students' receptive and expressive skills. The proficiency target is intermediate low.

| NCAA/DUAL (JE0102)

E03 | **Honors American Sign Language 3** [FY] 0.5/sem

ASL 3 expands language competence on topics that require more critical thinking skills. These topics include how to have a healthy lifestyle, investigating future professions, careers, volunteering opportunities, and the environment. The proficiency target is intermediate mid.

| NCAA

E04 | **Honors American Sign Language 4** [FY] 0.5/sem

ASL 4 delves deeply into global topics such as immigration, multiculturism, identify, family roles, responsibilities, customs and traditions as well as leisure and science and technology. Emphasis will continue to be placed on the development of the students' receptive and expressive skills. The proficiency target is intermediate mid to intermediate high.

| NCAA

E11 | **French 1** [FY] 0.5/sem

E21 | **Chinese 1** [FY] 0.5/sem

E41 | **German 1** [FY] 0.5/sem

E48 | **Italian 1** [FY] 0.5/sem

E61 | **Spanish 1** [FY] 0.5/sem

E80 | **Spanish for Native & Heritage Speakers 1** [FY] 0.5/sem

Designed to introduce students to language and culture. The Level 1 courses prepare students to communicate authentically in the target language about familiar topics on everyday life. Students communicate in the target language through reading, listening, speaking and writing. Students share their own culture while learning about the practices, products, and perspectives of the target culture. The proficiency target is novice high.

| NCAA
| DUAL (JE1101) French 1
| DUAL (JE2101) Chinese 1
| DUAL (JE4101) German 1
| DUAL (JE4801) Italian 1
| DUAL (JE6101) Spanish 1

E12 | **French 2** [FY] 0.5/sem

E22 | **Chinese 2** [FY] 0.5/sem

E42 | **German 2** [FY] 0.5/sem

E49 | **Italian 2** [FY] 0.5/sem

E62 | **Spanish 2** [FY] 0.5/sem

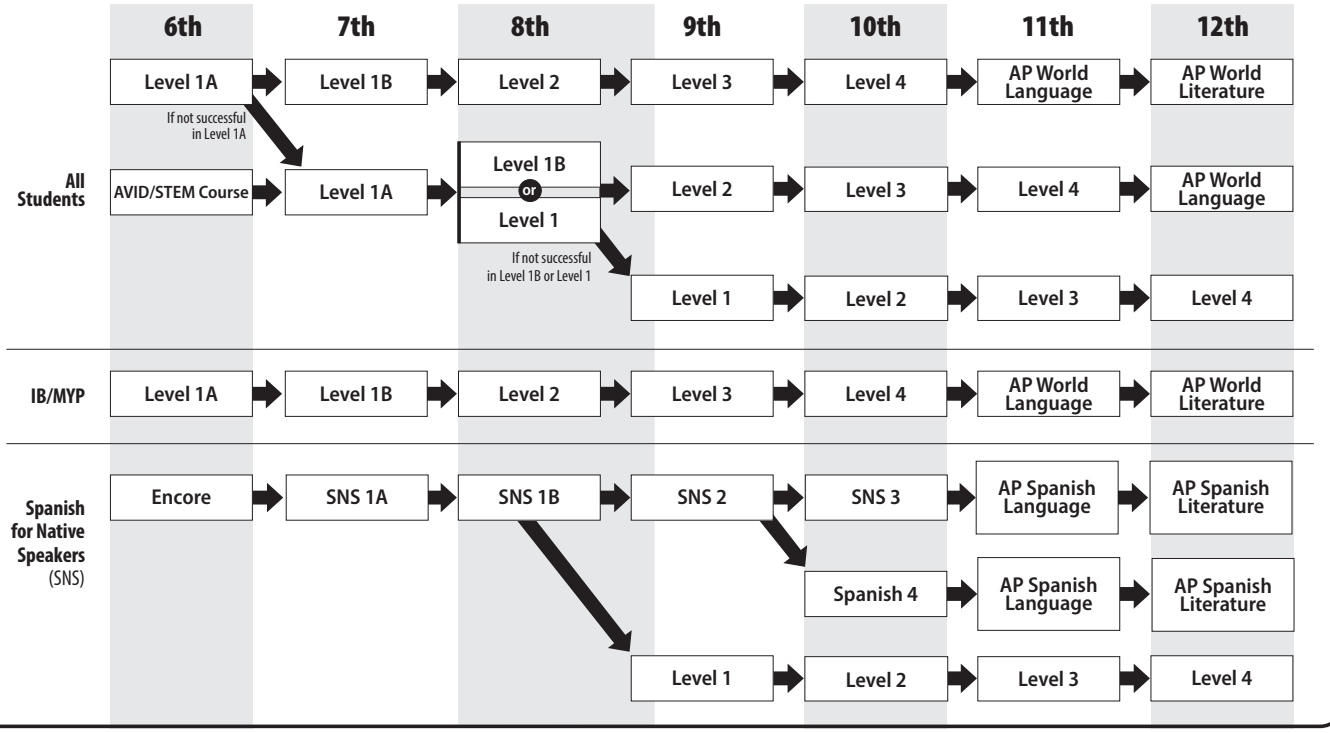
E81 | **Spanish for Native & Heritage Speakers 2** [FY] 0.5/sem

Students expand their ability to communicate through speaking, writing, listening and reading in a culturally appropriate manner about topics related to daily life such as, pop culture, the impact of technology in our daily lives, travel, celebrations, rites of passage, and sharing our stories. Level 2 students continue learning about the products, practices, and perspectives of the target cultures. The proficiency target is intermediate low.

| NCAA
| DUAL (JE1102) French 2
| DUAL (JE2102) Chinese 2
| DUAL (JE4102) German 2
| DUAL (JE4802) Italian 2
| DUAL (JE6102) Spanish 2

AACPS Possible World Language Course Pathways (Other sequences are possible based on student needs)

Students may complete two consecutive years of a world language in middle school. Our goal is for all students to successfully complete one level of a world language.



E13 | **Honors French 3**	[FY] 0.5/sem
E23 | **Honors Chinese 3**	[FY] 0.5/sem
E43 | **Honors German 3**	[FY] 0.5/sem
E50 | **Honors Italian 3**	[FY] 0.5/sem
E63 | **Honors Spanish 3**	[FY] 0.5/sem
E82 | **Honors Spanish for Native & Heritage Speakers 3**	[FY] 0.5/sem

Students continue to expand their ability to communicate through speaking, writing, listening, and reading in a culturally appropriate manner about a variety of familiar topics requiring more critical thinking skills. These topics include how to have a healthy lifestyle, investigating future professions, careers, volunteering opportunities, the impact of our daily habits on the environment, and discussing sustainability. Level 3 expands students' knowledge of relationships among the products, practices, and perspectives of target language countries and cultures. The proficiency target is intermediate mid.

| NCAA

| DUAL (JE1300) French 3

| DUAL (JE6300) Spanish 3

E14 | **Honors French 4**	[FY] 0.5/sem
E24 | **Honors Chinese 4**	[FY] 0.5/sem
E44 | **Honors German 4**	[FY] 0.5/sem
E51 | **Honors Italian 4**	[FY] 0.5/sem
E64 | **Honors Spanish 4**	[FY] 0.5/sem

Students communicate orally and in writing with increased proficiency in a culturally appropriate manner about a range of topics. They interpret detailed and extended information when listening and reading authentic resources. Level 4 delves deeply into global topics such as immigration, multiculturism, identity, family roles, responsibilities, customs and traditions as well as leisure and science and technology. Level 4 promotes students' understanding of the relationships among the products, practices, and perspectives of target language countries and cultures. The proficiency target is intermediate high.

| NCAA

| DUAL (JE1400) French 4

| DUAL (JE6400) Spanish 4

E15 | **AP French Language** [FY] 0.5/sem

E25 | **AP Chinese Language** [FY] 0.5/sem

E45 | **AP German Language** [FY] 0.5/sem

E65 | **AP Spanish Language** [FY] 0.5/sem

AP Language and Culture is equivalent to an intermediate level college course in the language. Students cultivate their understanding of the language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to 6 AP themes: family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges. Students develop their reading and listening skills through authentic resources that require a high level of critical thinking. Students engage in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products, practices, and perspectives. Students examine their own culture and compare it to that of the target language countries. Students may be eligible for the Maryland Seal of Biliteracy with a minimum score of a 4 or 5 on the corresponding AP Language and Culture Exam. The proficiency target is intermediate high.

E656 | **Seminar: AP Spanish Language** [FY] 0.5sem (Elective)

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 is required.

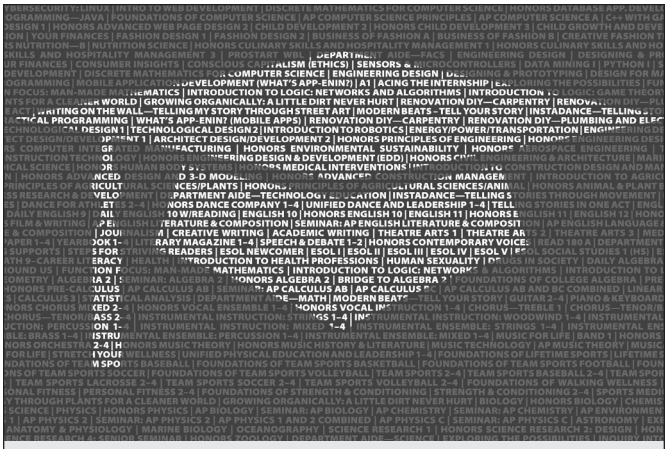
E66 | **AP Spanish Literature** [FY] 0.5/sem

Designed by the College Board to parallel college-level Introduction to Hispanic Literature courses, AP Spanish Literature examines literature from around the world where Spanish is the native language. This course includes a variety of genres and time periods to ensure that students are exposed to reading and interpreting moderately difficult prose to express critical opinions and literary analyses in oral and written Spanish (an ability equivalent to having completed a third-year college-level Spanish Language course). Students may be eligible for the Maryland Seal of Biliteracy with a score of 4 or 5 on the corresponding AP Language and Culture Exam.

| NCAA

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

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



If you have questions about any of the courses or programs described in this book, contact your School Counselor.

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.

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.

X04 | **School Counseling Aide** No Credit

School Counseling Aide courses offer students the opportunity to assist in preparing, organizing, or delivering materials to teachers and/or students.

X12 | **AP Capstone: Seminar** [FY] 0.5/sem

The Advanced Placement (AP) Capstone is built on the foundation of two 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. AP Seminar provides sustained practice of investigating issues from multiple perspectives and cultivates student writing abilities so they can craft, communicate, and defend evidence-based arguments. Students are empowered to collect and analyze information with accuracy and precision and are assessed through a team project and presentation, an individual written essay and presentation, and a written exam.

X15 | **AP Capstone: Research** [FY] 0.5/sem

The Advanced Placement (AP) Capstone is built on the foundation of two 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 investigation of topics from multiple perspectives.

X17 | **Global Community Citizenship** 0.5sem

Global Community Citizenship is designed to explore the values and diversity of our local, national, and global communities. Through Project-Based Learning, students will identify and discuss issues, events, and essential questions relevant to the community which will allow them to understand their role in demonstrating civic virtues. Students will consider the cultural and technological influences that have shaped our modern society and consider how these impact the students' social options in the future. Students will begin with self-exploration to understand what events, traditions, and circumstances have shaped their views, behaviors, and goals followed by them exploring the cultures, religions, and traditions of people in our community. Strategies integral to this course include the ability to discuss and debate mature topics and themes respectfully, a level of comfort with a variety of non-print mediums, working collaboratively in groups and participating in multi-disciplinary project-based learning. This course is a graduation requirement for all students

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. 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.

X21 | **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.

X40 | **PSAT/SAT Prep (English & Mathematics)** 0.5sem

Students in grades 10-12 prepare for the PSAT and SAT by developing and applying strategies to strengthen their mathematical, reading and writing 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.

Recommended: *Geometry and Algebra 2)*

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.

X43 | **Financial Literacy** 0.5sem

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.

X46–9/0/1/2 | **Student Seminar 9 /10/11/12** No Credit

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.

N61 | **Coping Skills 1-4** 0.5/sem

This course teaches students the social skills needed to prepare students to be successful in classroom and community settings. 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.

Note: *This course is available to students with a Section 504 Plan or an Individualized Education Plan (IEP).*

N62 | **Learning Strategies 1-4** 0.5/sem

This course prepares students for success in high school and/or for postsecondary education. This course is structured to provide each student with instruction aligned to individualized plans (e.g. 504/ IEP) and independent learning opportunities. Course topics may vary according to the students enrolled, but include skills designed to increase school engagement such as: self-determination skills (goal setting, problem solving, self-monitoring, and self-evaluation); self-awareness skills (interests, strengths, learning styles, managing stress); learning behaviors (time management, organization, study skills).

Note: *This course is available to students with a Section 504 Plan or an Individualized Education Plan (IEP).*

Career Connected Learning Options

Careeer Connected Learning 1 and 2 provide structured opportunities to connect classroom learning with real-world experiences through apprenticeships, internships, state-approved school-based enterprises, and employer-driven capstones. Each course requires a minimum of 250 hours of career-connected learning. These courses integrate academic content with authentic workplace exposure, and participation is open to all students while aligning with each student's six-year plan. Prerequisites and additional eligibility requirements may apply.

xxx | **CCL Apprenticeship 1** 2 Credits

xxx | **CCL Apprenticeship 2** 2 Credits

A structured training program that combines paid on-the-job experience with classroom instruction, allowing participants to gain practical skills and industry-recognized credentials while earning a wage.

xxx | **CCL Employer-Driven Capstone 1** 2 Credits

xxx | **CCL Employer-Driven Capstone 2** 2 Credits

A culminating experience in which students apply the knowledge and skills gained throughout their program to complete a comprehensive, real-world project or research assignment.

xxx | **CCL Internship 1** 2 Credits

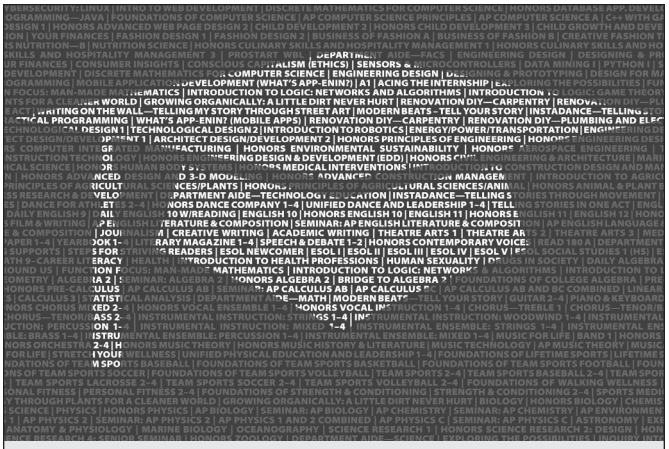
xxx | **CCL Internship 2** 2 Credits

A supervised work experience that allows students to apply classroom learning in a real-world setting, develop professional skills, and explore potential career paths.

xxx | **CCL School-based Enterprise 1** 2 Credits

xxx | **CCL School-based Enterprise 2** 2 Credits

A student-managed business that operates within the school, providing hands-on experience in entrepreneurship, management, and daily business operations.



If you have questions about any of the courses or programs described in this book, contact your School Counselor.

Certificate of Completion Courses

These courses are designed to meet the Individualized Education Program (IEP) needs of students with disabilities and provide specialized instruction and real-life experiences to prepare students with significant disabilities for life beyond high school. The following courses utilize a variety of strategies and instructional methods to provide students with specialized instruction in English, science, social studies, mathematics, and vocational programs.

Maryland High School Certificate

The Maryland High School Certificate of Program Completion (See COMAR 13A.03.02.09E) shall be awarded only to students with disabilities who cannot meet the requirements for a diploma but who meet the following standards:

a. The student is enrolled in an education program for at least 4 years beyond grade 8 or its age equivalent, and is determined by an IEP team, with the agreement of the parents of the student with disabilities, to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life, including but not limited to:
   - Gainful employment
   - Post-secondary education and training
   - Supported employment and
   - Other services that are integrated in the community, or

b. The student has been enrolled in an education program for 4 years beyond grade 8 or its age equivalent and will have reached age 21 before the first day of the next school year.

The Maryland Summary of Performance that describes the student's skills shall accompany the Maryland High School Certificate of Program Completion.

The final decision to award a student with disabilities a Maryland High School Certificate of Program Completion will not be made until after the beginning of the student's last year in high school.

A student with a significant cognitive disability may not meet high school graduation requirements if a student:

a. Participates in an Alternative Assessment based on Alternative Academic Achievement Standards (AA-AAAS); and

b. Continues to receive instruction based on Alternative Academic Achievement Standards through high school.

If a student participates in a graduation ceremony prior to the completion of the student's education program, at the ceremony the school system shall issue to the student a Certificate of Achievement or other similarly titled certificate in place of a diploma.

Certificate of Endorsement

a. Beginning with the 2024-2025 school year, students completing a Certificate may earn one or more endorsements.

b. The endorsements include a Post-Secondary Education endorsement, a Work-Ready/Employment/Career endorsement, and a Community/Citizenship endorsement.

c. Requirements for the endorsements will be defined by the Department.

Additional Opportunities Available for Students Earning a Certificate of Program Completion

Anne Arundel County Public Schools offers several programs (outside of the high school) to help students with significant disabilities make successful transitions from school to adult life. Students must apply and meet eligibility requirements to participate in one of these programs. Students who participate in either program will graduate from his/her high school receiving a Certificate of Achievement and will receive their Maryland High School Certificate of Program Completion upon successful completion of the program. Please contact your transition facilitator if you have any questions or would like additional information about the program.

On-Campus Transition Program (OCTP)

A two-year program at Anne Arundel Community College for students who have been identified with a developmental disability and are within their last two years of entitlement with AACPS. The OCTP allows learning opportunities and experiences with age-appropriate peers by participating in selected community college courses and campus activities. Life skills, functional academic, and self-determination instruction are provided by an AACPS Special Education teacher and supported by AACPS teaching assistants. Course selections will vary from year to year but are typically in the areas of art, health, and physical education.

Project SEARCH

A one-year, business-led transition program that takes place entirely at the host business for students in their last year of entitlement with AACPS. Project SEARCH provides real-life work experiences to help students make successful transitions from school to employment. Total workplace immersion facilitates a seamless combination of classroom instruction, career exploration, and relevant job-skills training through strategically designed internships. Project SEARCH is an international trademarked and copyrighted program model, which focuses solely on employment for Project SEARCH interns.

N19 | **English/Reading 9–12** [FY] 0.5/sem

Coursework is designed to enhance the transition from school to adult life/work. The course will develop skills in listening, speaking, reading, and writing, as specified in the Individualized Education Program (IEP) for each student enrolled as well as the Essential Elements (based on the Maryland College and Career-Ready Standards).

N29 | **Mathematics 9–12** [FY] 0.5/sem

Coursework is designed to enhance the transition from school to adult life/work. The course will develop skills in both mathematical concepts and real-world problem solving as specified in the Individualized Education Program (IEP) for each student enrolled as well as the Essential Elements (based on the Maryland College and Career-Ready Standards).

N39 | **Social Studies 9–12** [FY] 0.5/sem

Coursework is designed to enhance the transition from school to adult life/work. The course will develop skills in history, economics, geography, government, and real-world problem solving as specified in the Individualized Education Program (IEP) for each student enrolled. The course content is a bridge between the general education content standards and relevant curriculum for students with significant cognitive disabilities.

N49 | **Science 9–12** [FY] 0.5/sem

Coursework is designed to enhance the transition from school to adult life/work. The course will develop scientific skills, processes and concepts, and real-world problem solving as specified in the Individualized Education Program (IEP) for each student enrolled as well as the Next Generation Science Standards. The course content will be a bridge between the general education content standards and relevant curriculum for students with significant cognitive disabilities.

N730 | **Community Skills 9–12** [FY] 0.5/sem

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.

N950 | **Community Vocational Program 11–12** No Credit

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.

If you have questions about any of the courses or programs described in this book, contact your School Counselor.

Advanced Co-Curricular Programs

The Advanced Co-Curricular Programs Office at AACPS offers a broad range of learning experiences outside of the traditional classroom for all students. It is intended to complement, broaden, and provide practical application of knowledge students receive in regular classes and give students a chance to participate in activities they enjoy. Some involve outside organizations while others are maintained within the school.

Co-Curricular activities require students to think critically, solve problems, manage time, work as a team, and grow as individuals. (www.aacps.org/cocurricular)

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, Johns Hopkins University Applied Physics Laboratory (JHUAPL) 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.

Maryland Hall for the Creative Arts AACPS Scholarship Program

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/cocurricular). For further information, contact Maryland Hall for the Creative Arts directly at 410-263-5544 or visit their website.

www.marylandhall.org

Destination ImagiNation®

Each year, five different Team Challenges are unveiled to more than 400,000 students worldwide. Teams of up to seven members select a challenge and spend several months perfecting their solutions. The culmination is a series of tournaments where teams demonstrate their unique solutions to teams of appraisers. Only teams who register with the Advanced Co-Curricular Programs Office are eligible for discounted team registration numbers.

https://www.destinationimagination.org

Programs, Clubs, and Competitions

Co-curricular programs augment the instruction beyond the regular school day. Co-Curricular provides an enriching complement to a student's regular educational experience. Participation in these programs, clubs, or competitions offer students the opportunities to enrich their current program of studies and interests. Contact your school to obtain specific information about offerings. For more information, visit the program's website.

ACE Mentoring of Annapolis (ACE—Architecture Construction Management and Engineering)

ACE of Annapolis is part of the nationwide ACE Mentor program. Anne Arundel County high school students invest their time, talent, and beyond school time to work both fall and spring semesters on a collaborative real-world building design project that will be evaluated, scored, and awarded based on merits of design with skills and knowledge students have obtained from professional mentors within the construction industry. ACE of Annapolis consistently awards thousands of dollars in scholarships and countless hours of mentorship from professionals in architecture, construction management and engineering.

AVID Enrichment Club

In conjunction with the AVID Office, this club serves as an opportunity to apply skills and techniques learned in AVID courses. Enrichment options may be offered based upon student needs and availability.

Continental Math League (CML), Inc.

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

CyberPatriot

CyberPatriot is the National Youth Cyber Education Program created by the Air Force Association (AFA) to inspire K-12 students toward careers in cybersecurity or other STEM disciplines critical to our nation's future.

At the center of CyberPatriot is the National Youth Cyber Defense Competition, which puts teams of high school and middle school students in the position of newly hired IT professionals tasked with managing the network of a small company. Through a series of online competition rounds, teams are given a set of virtual operating systems and are tasked with finding and fixing cybersecurity vulnerabilities while maintaining critical services.

Destination ImagiNation® Grades K–12

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.destinationimagination.org

Future Business Leaders of America (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.

www.fbla-pbl.org

Future Farmers of America (FFA)

FFA is a national student leadership organization that supports the Agriculture Program of Study by developing students' leadership, career, and technical skills. Through hands-on learning, supervised agricultural experiences (SAEs), and competitions, students apply classroom knowledge to real-world agricultural and environmental careers. Integrated Arts or Fine Arts Club or STEM 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. STEM-based clubs must get approval from the STEM Coordinator at your school.

First Robotics

Using strict rules with limited time and resources, high school teams accept the challenge to build industrial-sized robots to play a difficult field game in alliance with other teams. Teams also fundraise to meet goals, design team "brand," and advance respect for team building and STEM education within the local community.

www.firstinspires.org

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.

https://nhd.org

MESA — Mathematics, Engineering, and Science Achievement

Maryland MESA, sponsored by The Johns Hopkins Applied Research Laboratory, 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 which focuses on under-represented groups. Students research, plan, create projects, and complete in activities ranging from engineering to computer programming to applied technology.
https://secwww.jhuapl.edu/stem/mesa

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

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 foodservice industry:

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.

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.
https://chooserestaurants.org

Robotics Club or FIRST LEGO League

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

Science and Engineering Expo

The high school science program gives students the opportunity to do independent or team research in science. Every student enrolled in a high school science course is expected to participate in science research as part of the curriculum experience. As a showcase of that research, students may compete in school and then district based Science and Engineering Expos. Students are encouraged to think beyond the traditional three-fold display board and consider exhibiting their projects with PowerPoints, videos, posters, and prototypes. Students can enter research as individuals or as a team of two or three students. Research categories are:

- Animal Science
- Behavioral & Social Sciences
- Biochemistry
- Biomedical Engineering
- Chemistry
- Earth and Astronomy
- Energy: Chemical
- Energy: Physical
- Engineering Mechanics
- Environmental Science
- Health Sciences
- Intelligent Machines/Robotics
- Materials Science
- Mathematics
- Medical Sciences
- Microbiology
- Physics
- Plant Sciences
- Sustainable Design
- Systems Software

SEAPerch—Underwater Robotics

This engineering design course focuses on design, development, and building of an 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.

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

Stock Market Club / Invest Write
(offered through SIFMA)

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. Invest Write is an extended offering of SMG that allows students to elaborate on the learning they achieve from Stock Market Game and apply it to research to explain stock decisions that have been made during the Game.

www.smgww.org

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).

https://tsaweb.org

VEX 5 Robotics

V5 electronics are approachable, flexible, and powerful, using state of the art technology to ensure relevant outcomes. Vex 5 includes versatile elements that makes engineering approachable for novice users, while still providing experienced users with endless design possibilities. Vex allows students to hone critical computational thinking.

www.vexrobotics.com/v5

Scheduling Worksheet

Fall		
Period 1		
Period 2		
Period 3		
Period 4		

Spring		
Period 1		
Period 2		
Period 3		
Period 4		

Scheduling Worksheet

Fall		
Period 1		
Period 2		
Period 3		
Period 4		

Spring		
Period 1		
Period 2		
Period 3		
Period 4		

Scheduling Worksheet

Fall		
Period 1		
Period 2		
Period 3		
Period 4		

Spring		
Period 1		
Period 2		
Period 3		
Period 4		

High School Program Information

	Annapolis High School	Arundel High School	Broadneck High School	Chesapeake High School	Crofton High School	Glen Burnie High School	Meade High School
Website	Annapolishighschool.org	Arundelhigh.org	Broadneck.org	Chesapeakehighcougars.org	croftonhigh.com	glenburniehs.org	meadeseniorhigh.org
Main Office	410-266-5240	410-674-6500	410-757-1300	410-255-9600	410-451-5300	410-761-8950	410-674-7710
Counseling	aacps.org/counseling						
Signature Program	Change Engineering aacps.org/annapolissignature	Community Development and Global Citizenship aacps.org/arundelsignature	Environmental Literacy aacps.org/broadnecksignature	Information Management aacps.org/chesapeakesignature	Safety and Security in the Digital Era aacps.org/croftonsignature	Public Service aacps.org/glenburniesignature	Homeland Security aacps.org/meadesignature
Magnet Program	International Baccalaureate aacps.org/ibhigh	N/A	Performing and Visual Arts aacps.org/pvahigh	N/A	N/A	BioMedical & Allied Health aacps.org/stem	International Baccalaureat aacps.org/ibhigh

	North County High School	Northeast High School	Old Mill High School	Severn Run High School	Severna Park High School	South River High School	Southern High School
Website	northcountyhs.org	northeasthigh.org	oldmillhs.org	www.aacps.org/severnrunhs	severnaparkhigh.org	southriverhigh.org	southernhigh.org/
Main Office	410-222-6970	410-437-6400	410-969-9010	TBD	410-544-0900	410-956-5600	410-867-7100
Counseling	aacps.org/counseling						
Signature Program	(IT3) International Trade, Transportation, & Tourism aacps.org/northcountysignature	Human Performance aacps.org/northeastsignature	International Economics and Finance aacps.org/oldmillsignature	TBD	Business, Innovation and Leadership aacps.org/severnaparksignature	Global Communications & Public Affairs aacps.org/southriversignature	Design: Preservation & Innovation aacps.org/southernsignature
Magnet Program	Science, Technology, Engineering & Math (STEM) aacps.org/stem	N/A	International Baccalaureate aacps.org/ibhigh	N/A	N/A	Science, Technology, Engineering & Math (STEM) aacps.org/stem	N/A

	CAT– North	CAT– South	Mary E. Moss @ J. Albert Adams Academy	Phoenix Academy	Studio 39	Chesapeake Science Point	Virtual Academy
Website	catnorth.org	catsouth.org	weareadmirals.weebly.com	aacps.org/phoenix	aacps.org/studio39	mycsp.org	aacps.org/virtualacademy
Main Office	410-969-3100	410-956-5900	410-222-1639	410-222-1650	410-280-1501	443-757-5277	410-544-1082
Counseling	aacps.org/counseling						

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COUNTY PUBLIC SCHOOLS

Mark T. Bedell, Ed.D.
Superintendent of Schools

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