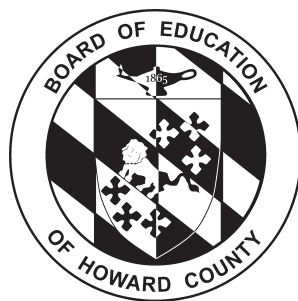


Catalog of Approved High School Courses 2022-2023

RIVER HILL HIGH SCHOOL

Members of the Board of Education of Howard County



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Dear Student:

The Howard County Public School System (HCPSS) offers a wide variety of courses for high school students. The Catalog of Approved High School Courses can help you and your parents select the courses that are best for you and your future goals. Choosing the courses for your high school program is an important task that you should do thoughtfully with your parents. You should consider:

- What courses are required for graduation?
- When will you take each required course?
- What are your interests and areas in which you wish to develop?
- What courses are best suited to your goals?

Teachers, school counselors and administrators are committed to supporting you at every stage of your learning and well-being. I encourage you to schedule an appointment with your school counselor to develop your Four-Year High School Plan, and meet with a counselor annually to review your plan and select courses for the upcoming school year.

High school is an exciting time of your life. This is a wonderful opportunity to plan an academic program that moves you toward reaching each milestone for personal achievement. On behalf of our entire school system, I wish you much success.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Martirano". The signature is fluid and cursive, with a large initial "M".

Michael J. Martirano, Ed.D.
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Graduation Requirements

Core Requirements		
	Grade 9 in SY2021–22 or Later	Grade 9 Prior to SY2021–22
	Total Number of Credits 22	Total Number of Credits 21
English	4 credits , including: 1 credit each in English 9, 10, 11, and 12	4 credits , including: 1 credit each in English 9, 10, 11, and 12
Mathematics	4 credits and 4 years of participation including: • 1 credit each in Algebra I and Geometry • 2 credits beyond Geometry	3 credits and 4 years of participation* including: • 1 credit each in Algebra I and Geometry • 1 credit beyond Geometry
Science	3 credits in laboratory-based science that align to the Maryland Science Standards and the Life Science MCAP (Maryland Comprehensive Assessment Program). Students may follow a variety of possible course pathways that allow them to acquire a breadth of scientific knowledge in one of each science disciplines of Earth Space Science, Life Science, and Physical Science.	3 credits in laboratory-based science that align to the Maryland Science Standards and the Maryland Integrated Science Assessment (MISA). Students may follow a variety of possible course pathways that allow them to acquire a breadth of scientific knowledge in one of each science disciplines of Earth Space Science, Life Science, and Physical Science.
Social Studies	3 credits , including: • 1 credit in U.S. History • 1 credit in Local, State & National Government • 1 credit in World History	3 credits , including: • 1 credit in U.S. History • 1 credit in Local, State & National Government • 1 credit in World History
Other Requirements		
Fine Arts	1 credit. See course list on page 4.	1 credit. See course list on page 4.
Physical Education	1/2 credit , in Lifetime Fitness.	1/2 credit , in Lifetime Fitness.
Health	1 credit , in Health Education	1/2 credit , in Health Education
Computer Science, Engineering, or Technology Education	1 credit. See course list on page 5.	1 credit. See course list on page 5.
Program Choice	2 credits in the same World Language OR 2 credits in an approved Advanced Technology Program** OR 3 or more credits in a Career Academy (State-approved Career and Technical Education Program)	2 credits in World Language OR 2 credits in an approved Advanced Technology Program** OR 3 or more credits in a Career Academy (State-approved Career and Technical Education Program)
Electives	1-3 credit(s) to include courses beyond requirements.	1-3 credit(s) to include courses beyond requirements.

* Students are required to enroll in a mathematics course in each year of high school. The mathematics credits earned will consist of one credit in each of Algebra I and Geometry, and additional credit(s) in courses such as Algebra II and beyond that utilize algebra in a substantive way so that the students do not lose the algebraic and numerical skills achieved in earlier courses. Students who successfully complete high school level mathematics courses prior to high school still need to earn the required mathematics credits in high school and be enrolled in a mathematics course in each year of high school.

** The Advanced Technology Program pathway will no longer be available after SY 2022-2023.

Graduation Requirements

Credit for High School Courses Taken in Middle School

Any high school course listed in the Middle School Course Catalog which is offered at the middle school is eligible for high school credit and will be treated as an equivalent, including mid-term and final assessments. For high school courses taught in middle school, the mid-term assessment will be included in the second quarter grades and the final assessment will be included in the fourth quarter grades.

The student's course grade will be recorded on the high school transcript. The student's grade will not be calculated into the high school grade point average (GPA). If a student re-takes one of the high school courses taken in middle school for which credit was earned:

- The high school grade(s) will be calculated into the GPA, and
- Only the first credit will be awarded.

High school credit courses offered in middle school include:

- ESOL - English Language Development 1 & 2
- Mathematics - Algebra I, Algebra I GT, Geometry G/T, Algebra II G/T, and AP Statistics
- Technology Education - Exploring Computer Science & Foundations of Technology
- World Language - Spanish I & II, French I & II, and Chinese I & II (where available)

Career Preparation Requirements*

The Howard County Public School System requires that all students participate in an approved program of career preparation. Refer to Policy 8030: Graduation Requirements.

Students will complete the following three instructional activities in career preparation:

- Develop and update an individual four year plan.
- Participate in a job interview simulation.
- Complete a qualifications brief or résumé acceptable for seeking employment.

Career preparation activities in the junior year include an opportunity to participate in a junior interview clinic.

Note: Students who enroll in a HCPSS school their senior year shall be given the opportunity to complete the three instructional activities in career preparation, including participation in the junior interview clinic.

Student Service Requirements*

The Maryland State Board of Education stipulates that all students in Maryland public schools must complete student service requirements in order to earn a high school diploma. Most Howard County public school students or Maryland public school transfer students complete the service requirement at the middle school level. Those students who have not completed the requirement prior to entering high school, or who transfer into Howard County public schools from out-of-state or nonpublic schools, will be required to complete the following service learning:

* See the school counselor for more information on how to fulfill these requirements. The Social Studies course Leadership and Student Service Learning (SO-510-8) may be used to support meeting this requirement

Grade Level of <u>First</u> Enrollment into HCPSS Between Grades 6-12	Maximum of Number of Hours Required
6th, 7th or 8th grade	75 hours
9th grade	75 hours
10th grade	50 hours
11th grade (first semester)	40 hours
11th grade (second semester)	30 hours
12th grade (first semester)	15 hours
12th grade (second semester)	10 hours

Graduation Requirements

Maryland High School Certificate of Program Completion

The Maryland High School Certificate is awarded only to students with disabilities who have an Individualized Education Program (IEP) and who do not meet the requirements for a diploma but who meet one of the following standards:

- The student is enrolled in an education program for at least four years beyond grade eight or its age equivalent, and is determined by an Individualized Education Program (IEP) Team to have developed appropriate skills for entering the world of work, acting responsibly as a citizen, and enjoying a fulfilling life. Career Preparation shall include (but not be limited to) gainful employment, post-secondary education and training, supported employment, and other services that are integrated in the community.
- The student has been enrolled in an education program for four years beyond grade eight or its age equivalent and has reached age 21.

Assessment Requirements

Maryland High School Required Assessments

Students enrolled in Algebra I, English 10, Biology, and American Government are required to participate in state mandated end of course assessments. Students must take the Maryland Comprehensive Assessment Program (MCAP) assessments for each course to fulfill the requirements for a Maryland High School Diploma. These assessments ensure that graduates have mastered the basic skills needed to succeed after high school. Starting with the 2022-2023 school year assessment administrations, scores will be counted as 20% of the corresponding course grades.

The skills and knowledge necessary to demonstrate understanding of each course's content are embedded in the Howard County Public School System (HCPSS) curriculum. The courses associated with the English 10, Algebra I, Biology, and Government assessments are typically taken during freshman and sophomore years. The table below summarizes the requirements.

Course	Criteria	Assessment Requirement
Algebra I	First time Algebra I test taker prior to the 2022-2023 school year	Participate in Algebra I MCAP
	First time Algebra I test taker during or after the 2022-2023 school year	Algebra I MCAP 20% of course grade
English 10	First time English 10 test taker prior to the 2022-2023 school year	Participate in English 10 MCAP
	First time English 10 test taker during or after the 2022-2023 school year	English 10 MCAP 20% of course grade
Biology	Completed Biology course prior to the 2022-2023 school year	Participate in Life Science MCAP*
	Completed Biology course during or after the 2022-2023 school year	Life Science MCAP 20% of course grade
Government	First time Government test taker prior to the 2022-2023 school year	Participate in Government MCAP
	First time Government test taker during or after the 2022-2023 school year	Government MCAP 20% of course grade

* The Life Science MCAP is a replacement for the previous high school Maryland Integrated Science Assessment (MISA). MISA scores from 2020-2021 or 2021-2022 also fulfill the requirement.

Courses Meeting the Fine Arts Requirements

Fine Arts Course List: Any of these courses meet the Fine Arts requirement for graduation.

Art -- Fine Art Courses Art I: Foundations of Studio Art - VA-400-1 Art II: Developing Ideas in Media - VA-500-1 Art II: Developing Ideas in Media - G/T - VA-510-1 Art III: Portfolio Development - AP - VA-610-1 Art III: Portfolio Development - Honors - VA-600-1 Art IV: Personal Directions in Art Studio - AP - VA-710-1 Art IV: Personal Directions in Art Studio - Honors - VA-700-1 Art Studio - Honors - VA-810-1 New Forms in Art - G/T - VA-850-1 Photography I - VA-520-1 Photography I - G/T - VA-530-1 Photography II - Honors - VA-620-1 Photography II - AP - VA-630-1 Photography III - Honors - VA-740-1 Photography III - AP - VA-750-1 Photo Studio - Honors - VA-830-1 Photo Studio - AP - VA-840-1	Music -- Fine Art Courses Band - Symphonic/Marching - MU-500-1 Band - Symphonic Winds/Marching - MU-600-1 Band - Wind Ensemble/Marching - G/T - MU-800-1 Band - Concert - MU-400-1 Chorus - MU-410-1 Piano I, II - MU-470-1, MU-570-1 Piano III/IV - Honors - MU-870-1 Piano III/IV - G/T - MU-871-1 Chamber Choir - G/T - MU-812-1 Concert Choir - MU-510-1 Concert Choir - G/T - MU-810-1 Guitar I, II - MU-430-1, MU-530-1 Guitar III/IV - Honors - MU-830-1 Guitar III/IV - G/T - MU-831-1 Instrumental Ensemble - MU-520-1 Jazz Ensemble - MU-580-1 Jazz Ensemble - G/T - MU-880-1 Music Technology I, II - MU-450-1, MU-550-1 Music Theory I - MU-460-1 Music Theory II - AP - MU-860-1 Percussion Ensemble - MU-480-1 Percussion Ensemble - G/T - MU-840-1 String Ensemble - MU-420-1 String Orchestra - MU-520-1 String Orchestra - G/T - MU-820-1 Vocal Ensemble - MU-710-1 Vocal Ensemble - G/T - MU-811-1
Dance -- Fine Art Courses Dance I, II, III, IV, DT-400-1, DT-500-1, DT-600-1, DT-700-1, DT-711-1 Dance Company - G/T - DT-720-1 Junior Dance Company - G/T - DT-730-1	
Theatre -- Fine Art Courses Theatre Arts I - DT-410-1 Theatre Company - DT-741-1 Theatre Company - G/T - DT-751-1 Musical Theatre - DT-761-1 Musical Theatre - G/T - DT-771-1 Theatre Apprenticeship - G/T - DT-791-1	

Computer Science, Engineering, or Technology Education Requirements

Computer Science, Engineering, or Technology Education Course List: Any of these courses meet the Computer Science, Engineering, or Technology Education Graduation Requirement.

Aerospace I - G/T - CT-605-2
Computer Science Principles - AP - CT-405-1
Exploring Computer Science - Honors - CT-400-1
Foundations of Technology - CT-800-1
PLTW Introduction to Engineering Design - G/T - CT-805-1

Program Choices

Students must complete at least one of the following options:

Option 1: World Language

2 Credits in World Language

Option 2: Advanced Technology Education Sequence**

2 Credits in an approved Technology Education Sequence

Advanced Technological Applications - CT-880-1

Advanced Design Applications - CT-800-1

The Advanced Technology Education Sequence is not offered at all high schools. Check with the school counselor to determine availability.

Option 3: Career and Technical Education (CTE)

3 or more credits in a CTE Program

It is recommended that students choosing Option 3 also take two credits of World Language.

** The Advanced Technology Program pathway will no longer be available after SY 2022-2023.

Program Option 3

Career and Technical Education Completer

CTE – Career and Technical Education

Career Academies encompass a range of careers based on essential economic activities, similar interests, common skills, and training required by those in the field. It is a way to organize teaching and learning to meet the specific needs and resources in broad career areas, grouping similar occupations.

Each academy meets all graduation requirements and prepares students either for post-secondary education and/or the world of work. Academy students may participate in special activities and events that provide greater awareness of the specific career area and opportunities within that area. Students will be part of a small group with similar interests completing courses together. The section of this Catalog of Approved High School Courses entitled Career Academies provides guidance regarding course selection, academy prerequisites, special requirements, and information needed to complete each Career Academy Program.

Career Academy Clusters	
Arts, Media and Communication Cluster • Animation and Interactive Media Production • Graphic Design	Human Resource Services Cluster ▫ Junior Reserve Officers' Training Corps (JROTC) ▫ Teacher Academy of Maryland
Business, Management and Finance Cluster • Academy of Finance ▫ Marketing Academy ▫ Accounting Academy ▫ Business Management Academy	Information Technology Cluster ▫ Computer Programming Academy • Cybersecurity Networking Academy with pathways in Computer Networking and Cyber Ops
Construction and Development Cluster • Architectural Design Academy • Construction Academy • HVAC Academy	Manufacturing, Engineering and Technology Cluster • Aerospace Engineering: Project Lead the Way (PLTW) Academy ▫ Engineering: Project Lead the Way (PLTW) Academy • Systems and Project Engineering Academy
Consumer Services, Hospitality and Tourism Cluster ▫ Culinary Science Academy	
Environment, Agriculture and Natural Resources • Agricultural Science Academy	Transportation Technologies Cluster • Automotive Technology Academy
Health and Biosciences Cluster • Academy of Health Professions (with pathways in Certified Nursing Assistant, Clinical Research in Allied Health, Physical Rehabilitation, and Emergency Medical Technician). • Biotechnology Academy	Work Based Learning • Apprenticeship Maryland Academy ▫ Career Research and Development Academy • Early College Program - Cybersecurity
• ARL-based for 11th and 12th grade academy courses. Seating is limited for the Academy Courses. ▫ All courses are offered at the local high school.	

General Information

Note: Information in this section summarizes HCPSS policies. Although deemed accurate, this information does NOT supersede policy. See the Board of Education (BOE) section of the HCPSS website (www.hcpss.org) to access Board of Education policies.

Work-based Learning Release Time: Qualifications and Procedures

Work-Based Learning Release is the procedure whereby a high school student is allowed to leave school during normal school hours for the purpose of work based learning when such activities are not for credit toward graduation. This form must be completed annually and prior approval from the school must be given. Applicants should meet the following conditions as a minimum:

1. Have completed two years of high school, grades 9-10, by the time the request will be implemented.
2. Have completed a four-year plan for high school graduation.
3. Have met all Maryland High School Assessment requirements.
4. Have completed the Student Service Learning requirement.
5. Have completed the Career Preparation requirement, applicable to seniors only.
6. Plan for supervision during the time period, even when not attending a work site.
7. Able to gain all credits required for graduation by the end of the school year.

See school counselor for additional information.

Grading and Reporting

Reporting Student Progress

1. Teachers should notify parents of unsatisfactory progress throughout the marking period.
2. Teachers will grade, post, and return student work within three weeks of the due date, barring unusual circumstances and include written feedback when possible and appropriate.
3. Report cards are issued to parents at the conclusion of each marking period.
4. Final report card for high school students is available for students and parents on the Report Cards page in HCPSS Connect (Synergy). Click on the More Options link and note the Report Cards option.

Policy 8020 Grading and Reporting: Middle and High School is currently under review.

The electronic version of the catalog will be updated with the revised policy.

General Information

Policy 8020 Grading and Reporting: Middle and High School is currently under review.

The electronic version of the catalog will be updated with the revised policy.

Weighted Grade Point Average (GPA)

Weighted GPA will be used for academic eligibility for extracurricular activities, National Honor Society, honor roll, and for any other activity requiring the reporting of grade point average. See Policy 8020 for more information.

Students receive weighted quality points if they earn a grade of "A" or "B" or "C" in Advanced Placement (AP), in Gifted and Talented (G/T), and in Honors courses. Weighted classes are designated in the catalog with the symbol ♥. Students earn 1.0 additional quality points for G/T and AP courses and .5 additional quality point for Honors courses.

Weighted Quality Points			
Grade	AP and G/T	Honors	Regular
A	5.0	4.5	4.0
B	4.0	3.5	3.0
C	3.0	2.5	2.0
D	1.0	1.0	1.0
E	0	0	0

General Information

Promotion

Academic Intervention Courses

Any student who is not making satisfactory progress in reading and/or mathematics at the end of 8th grade will be strongly recommended to participate in appropriate interventions based on academic need as determined by the middle school principal, Policy 8020, Grading and Reporting Middle and High School, in order to be promoted, at the discretion of the principal, to Grade 9. Students and parents are encouraged to talk with middle school teachers, counselors, and administrators to understand how prescribed courses improve preparation for high school.

To be promoted to grade 10 students must have:

- Earned five credits including one English credit.
- One year of high school attendance.

To be promoted to grade 11 students must have:

- Earned ten credits including two English credits.
- Two years of high school attendance.

To be promoted to grade 12 students must have:

- Earned fourteen credits including two English credits.
- Three years of high school attendance.

Withdrawal from Courses

Howard County Public School System Policy 8020, Grading and Reporting Middle and High School, governs procedures related to students who withdraw from courses or change levels of a course. **W** (withdrawal) code indicates that a student withdrew from a course after the designated date for withdrawal (20 school days from the start of the course). No credit shall be received by students who withdraw.

- a. If a student transfers between levels of the same course, a **W** code will not be assigned. The grade the student earned in the original course will be averaged into the new course. The new teacher may require make-up work.
- b. If a student transfers to a different course prior to the designated date for withdrawal, a **W** code will not be assigned. The student will not be required to make up work in the new course if the schedule change is made prior to the **W** date, if make-up work for the new course can be averaged into the first marking period grade.
- c. If a student withdraws from a course and transfers to a different course after the designated date for withdrawal, a code of W will be assigned in the withdrawn class and no credit will be awarded. The schedule change form will be placed in the student's cumulative record. The teacher of the new course may recommend work for the student in order to gain missing content, and it will be the teacher's decision if it will be included in the student's grade. The principal may permit a student to earn credit in the new course until the mid-point of the course (i.e., end of second marking period for 1.0 credit or more courses; mid-term assessment for 0.50 credit courses).
- d. Level changes will only be permitted until the mid-point of the course (i.e., end of second marking period for 1.0 credit courses; mid-term assessment for 0.50 credit courses.)

General Information

Academic Eligibility

Policy 9070 governs minimum academic eligibility for student participation in extracurricular activities for which there is an HCPSS contracted sponsor. There are no academic eligibility standards for extracurricular activities participation when participation is required as part of a course and for clubs and activities with a sponsor not contracted by HCPSS. See Policy 9070 for more information.

Earning Academic Eligibility

For high school, a full-time student earns academic eligibility to participate in extracurricular activities by maintaining a 2.0 weighted grade-point average (GPA), calculated using credit or non-credit courses, with no more than one failing grade for the marking period that governs eligibility for that activity.

If a student withdraws from a course, the grades at the time of withdrawal will be used to determine academic eligibility. For the 2020-2021 school year Policy 9070 Academic Eligibility for High School Extracurricular Activities was revised to allow all students to be eligible for the first activity of the year. For all other activities, the most recent report card before the start of the season was to be used to determine a student's eligibility for participation.

Voluntary Extracurricular Activity

Each voluntary extracurricular activity is governed by only one marking period. A student must have earned academic eligibility prior to the start of the activity (as determined by the last report card). Once academic eligibility has been determined, the student remains academically eligible for the duration of that activity season.

Innovative Pathways High School Summer Programs

For calculating eligibility, review, and original credit course grades earned in the Innovative Pathways High School Summer Programs will be used in lieu of the grade earned in the same course during the fourth marking period.

Students with IEPs/504s

The Academic Eligibility Policy governs students with IEPs/504s eligibility for extracurricular activities unless the Individualized Education Program (IEP) team exempts the student. The IEP team can exempt a student when it determines that failure to meet eligibility requirements is a direct result of the student's educational disability.

A 504 team may provide a waiver of eligibility if it is determined Free Appropriate Public Education (FAPE) was not provided and the lack of FAPE led to the ineligibility.

National Collegiate Athletic Association (NCAA) Eligibility (★)

All students who intend to participate in interscholastic athletics in a Division I or Division II postsecondary institution must register with the NCAA Initial-Eligibility Clearinghouse. The purpose of this registration is to determine whether or not the student is a "qualifier" and can practice, compete, and receive athletic scholarships as a freshman. Part of that determination is based upon the student's completion of a required number of core courses as approved by the NCAA. The courses designated with ★ have been approved by the NCAA for Howard County Public Schools for the upcoming school year. Because the approved list of courses is updated every year, students must maintain contact with their school counselors to assure that courses selected during the winter registration process are still accepted by the NCAA for the subsequent school year. Students are also encouraged to see their counselors to receive more complete information on NCAA eligibility requirements, or go to their website - www.eligibilitycenter.org.

General Information

Course Offerings

The Catalog of Approved High School Courses contain brief descriptions of all approved courses offered in HCPSS. Each high school offers a broad selection of these courses. Students and parents should work together to review the course offerings, the graduation requirements, and other information in this catalog to make the best choices for each student.

Course Levels

As long as students meet the course prerequisites, they may enroll in any level of a course (regular, honors, G/T, or AP) whether or not they were enrolled in that level the previous year.

Regular Courses	Designed to prepare students with the knowledge and skills required to meet state college and career readiness standards.
Honors Courses	Designed for students who are capable of and interested in progressing through course material with more depth and rigor than the regular course.
Gifted and Talented (G/T) Courses	Designed to provide advanced learners with accelerated and enriched learning experiences, including in-depth studies of advanced, conceptually challenging content applied in authentic contexts using inquiry and problem-solving approaches.
Advanced Placement (A/P) Courses	Taught at a college level with curriculum determined by The College Board. Students successfully completing AP courses should plan to take the Advanced Placement Tests in May. Students who score well on these tests may attain advanced standing or be awarded credit in many colleges and universities.
Dual Enrollment Courses	HCC courses are college level courses and receive college credits. Students taking college credits are starting their college transcript. These courses may be taught on a semester basis as opposed to year-long course. Note: A CC course will offer the highest weighted equivalent course currently offered by HCPSS.

Special Education

Special Education services are designed to meet the needs of students with disabilities who have been found eligible for services through the Individualized Education Program (IEP) process. An IEP is developed through an IEP Team and reflects special education instruction, supports, related services, and least restrictive environment guidelines in accordance with the Individuals with Disabilities Education Act (IDEA). NOTE: All diploma seeking students, including students with IEPs and 504 plans, must complete graduation requirements.

General Information

504

Students who meet the eligibility guidelines will have a 504 Plan developed for use in school. The 504 Plan specifies the nature of the impairment, the major life activity affected by the impairment, accommodations necessary to provide access based on the student's needs, and the person(s) responsible for implementing the accommodations.

ESOL

All eligible multilingual learners must be notified of available English language development instructional models upon registration. An evaluation of foreign transcripts and credits will be conducted to determine credits earned toward a Maryland High School Diploma. The ESOL program is available at all HCPSS high schools.

Alternative Education

The Alternative Education Program provides academic and behavioral support with an emphasis placed on organizational strategies, classroom behaviors, study skills, and conflict resolution.

Objectives:

- Students will learn the study skills and habits necessary for academic success
- Students will work on how to improve behaviors that interfere with their set goals
- Students will practice self-advocacy skills to empower them to take more responsibility for their learning

Teen Parenting

Pregnant and parenting teens may enroll in the Teen Parenting Program, which may provide day care for infants– 2 year olds, health care for babies and mothers, and an all-day instructional program. This program is located at Wilde Lake High School.

Students enrolled in this program retain their status in the comprehensive high school from which they will graduate.

Advanced Research Courses

The Advanced Research courses listed below can be used to meet elective credit requirements for graduation.

Intern/Mentor Program (G/T)

- Acceptance via application, intake interview, and teacher recommendation.
- Students demonstrate prerequisite knowledge or advanced-level skills in the mentor's area of work.
- Students must maintain a grade of B or above in the area of study.
- Students must have two "above average" recommendations from professionals who have taught or worked with them in the related area of study that demonstrate task commitment, responsibility, independence, and the ability to get along with adults.
- Students must commit to their academic mentorship experience as a priority in the year they elect to participate.

Transportation: Students meet with their mentors at the mentor's place of work. Therefore, students must provide their own transportation to the work site.

Independent Research I, II, III (G/T) (Grades 9-12)

The eligibility criteria is as follows:

- Acceptance via application and teacher recommendation.

General Information

Non-traditional Sources of Credit

Besides attending regular HCPSS school-based classes, students may earn additional credits in a number of ways. Many require prior authorization. Please check with your school counselor before registering.

Credits Taken Outside of HCPSS

In-Person Courses

Howard County Public Schools recognize coursework completed at state-approved public institutions in or outside of Maryland during the summer or the regular school year. However, students must secure both their school counselor's and principal's authorization in advance before attending courses outside of the HCPSS for credit.

Fully Online Courses

Current HCPSS students who are interested in enrolling in a non-HCPSS fully online class, other than a JumpStart dual enrollment course in collaboration with Howard Community College (HCC) or other college level course, should review the following information to ensure the course(s) meet MD COMAR requirements and can be awarded high school credit. Board of Education Policy 8200 Digital Education specifies the eligibility criteria under which HCPSS students may enroll in HCPSS digital education.

Policy 8200 eligibility criteria includes:

1. The school does not offer the course.
2. There is a scheduling conflict which prevents the student from taking the course when it is available and there is no accessible alternative in future academic years.
3. The student has been approved for early graduation or early college access demonstrated through their four year plan.
4. Home and Hospital Teaching Program.
5. Administrative placement..

Students seeking to enroll in a course should meet with their school counselor to:

1. Discuss the readiness of taking a fully online course(s) and the appropriateness of the specific course(s) to be taken based on the student's four-year plan to progress towards graduation.
 - a. For students enrolling in a Self-Pay fully online course option, ensure the course enrollment takes place beyond the school day.
2. Determine if the student has met the course prerequisites listed in the HCPSS Catalog of Approved High School Courses.
3. Ensure that the course(s) and course provider are approved by the HCPSS and can be awarded high school credit.

Parents/guardians who enroll HCPSS students in a fully online course(s) without the approval of the school counselor **are not guaranteed that the course(s) taken will be awarded high school credit.** Please note:

- MSDE maintains a list of courses and course providers that are approved for fully online instruction. The HCPSS does not offer all of the courses listed from MSDE. Do not assume that a course on the MSDE list is accepted by HCPSS.
- MSDE does not approve or recommend a third-party vendor. Instead, individual courses are approved and there may be multiple approved providers for a course. Do not assume that all of a third-party vendor's courses will be awarded credit.
- The MSDE course list is updated each year as course approvals are required to be renewed. Do not assume that a course that was available in previous years will be available during the current school year.
- Some third-party vendors may include misleading "approval" or "accreditation" language in their materials or on their website that claims they are approved by the MSDE for fully online courses. Do not assume this is accurate.

To help ensure that the course(s) taken will be accepted for high school credit, review the request with the school counselor before enrolling a student in a fully online course with a third-party provider.

General Information

Self-Pay Course Option

Students who do not meet the eligibility criteria but still wish to enroll in a fully online course, may do so but will be responsible for course tuition costs and fees. Students should meet with their school counselor to discuss the readiness of taking a fully online course(s) and the appropriateness of the specific course(s) to be taken. For students enrolling in a self-pay fully online course option, ensure the course takes place beyond the school day. After submitting an enrollment request, Digital Education will send parents/guardians the approved course provider information for the course(s) to help ensure that the student may be awarded high school credit.

The list of approved HCPSS fully online courses is updated throughout the school year. View the most current information through the Digital Education Program web page or contact your school counselor or the Digital Education Program office (DEP@hcpss.org) for more information.

Credits Taken Within HCPSS

Innovative Pathways Program

Gear Up for 9th Grade Summer Program

This program is offered within the Innovative Pathways High School Summer Program and is designed to provide students with an opportunity to build skills and knowledge to prepare for success in high school level English and/or Algebra. Students may only request enrollment in the course(s) for which they have been identified as needing support (Foundations of English, Foundations of Algebra, or both).

Gear Up Foundations of English (0.5 credit)

The objective of this course is to provide students with a solid foundation in the skills and processes of literacy and to produce strategic, independent readers, and critical thinkers. This course is designed to prepare students for 9th grade English while engaging students in activities that require them to: 1) read closely to determine what a text says explicitly and make logical inferences from it; 2) determine central ideas or themes of a text and analyze their development; 3) summarize key supporting details and ideas; and 4) evaluate arguments and specific claims within a text.

Gear Up Foundations of Algebra (0.5 credit)

This course provides students with foundational supports critical for success in high school Algebra I, and focuses on building understanding and fluency with: 1) applying and extending numbers to the system of rational numbers; 2) solving real-life and mathematical problems using algebraic expressions and equations; 3) analyzing proportional relationships; 4) defining, evaluating, comparing, and building functions and using them to model relationships between quantities; 5) understanding the connections between proportional relationships, lines, and linear equations; 6) analyzing, constructing, and solving linear equations and pairs of simultaneous linear equations; and 7) constructing and comparing linear and exponential models and solve problems.3) summarize key supporting details and ideas; and 4) evaluate arguments and specific claims within a text.

Innovative Pathways High School Summer Program

The Innovative Pathways High School summer program offers personalized assistance and rigorous instruction in a range of subjects, including on-grade level courses and upper-level GT courses for students wanting to accelerate their learning.

For the Innovative Pathways High School Summer Program, students entering Grade 9 may take high school courses for which they have met prerequisite requirements or are available as existing 9th grade course options (except English, Health and Lifetime Fitness). Credits earned in the High School Summer Program will count towards high school credit and graduation requirements but not included in the high school Grade Point Average (GPA).

For more information, please visit the Innovative Pathways High School Summer Program section on the HCPSS Summer Programs web page or email: IPSummer@hcpss.org.

Innovative Pathways Evening Program

The Innovative Pathways Evening Program provides educational services for current high school students through Evening School for:

- Students seeking to recover credit for missed/failed courses.
- Students interested in taking additional classes to advance their studies.
- Students who are on long-term suspension or who have been expelled from school but are under 18 years of age.

All Innovative Pathways Evening Program courses are taught using a blended instructional model; combining synchronous (real-time) instruction with an HCPSS teacher one to three days per week (Tuesday, Wednesday, Thursday) with additional online coursework completed outside of class time. Scheduling two academic periods, three days per week, allows students to access more than one course per academic year. For more information, please visit the Innovative Pathways Evening Program web page or email: IPEvening@hcpss.org.

General Information

Additional HCPSS Credit Opportunities

Middle School Students

Any high school course listed in the Middle School Course Catalog which is offered at the middle school is eligible for high school credit and will be treated as an equivalent. Students who meet the Policy 8200 Digital Education eligibility criteria for fully online courses may enroll in HCPSS digital education. The following exceptions apply:

- Students transferring into HCPSS who do not have the appropriate level course at their middle school.
- Students enrolled in a pilot middle school offering Spanish 2 who transfer to a middle school where the course is not available.

NOTE: It is recommended that middle school students do not accelerate mathematics instruction by enrolling in fully online course instruction.

The **list of approved HCPSS fully online courses is updated throughout the school year.** View the most current information through the Digital Education Program web page or contact your school counselor or the Digital Education Program office (DEP@hcpss.org) for more information.

Tutoring for Credit

Extenuating circumstances may necessitate the assistance of tutors for certain students. However, tutoring will be considered for credit only after all the resources of the school system have been used fully and when it is determined that the best interests of the students are being served. If tutoring is recommended by the school and approved by the school system for credit to be applied toward minimum graduation requirements, then the tutor, the program of study, and the examination shall be financed by the local school system (COMAR 13A.03.02.03). This tutoring may be provided for a portion of the school year or for the entire year with a prescriptive program from the student's regular teacher. All tutoring programs must be approved in advance by the Chief Academic Officer. Approval is based on need, the principal's recommendation, the curriculum coordinator's review of the proposed syllabus, and the proposed tutor's credentials. These tutoring procedures do not apply to the Home and Hospital Teaching Program or to the Home Instruction Program.

Articulated Credits

Students who successfully complete one of the Career Academies may have the option of receiving credit at identified colleges. The number of credits range from 3 to 12, depending on the Academy and the College.

Credit by Examination

Students who have met all graduation requirements except for earning a credit in English 12 may earn the credit for the course by taking a state-approved examination and achieving a passing score as defined by MSDE. Contact your school counselor for more details.

Alternatives to Four-Year Enrollment

Students are expected to enroll in a full schedule of courses each year that they are in attendance, unless they have special permission to do otherwise.

In recognition of the fact that four-year enrollment in a public high school may not serve the best interests of some students, these alternatives are made available:

- Early College Admission Program.
- Early Admission to Approved Vocational, Technical, or other Postsecondary School.
- Request for Early Graduation.

For students requesting early graduation, they must meet the graduation requirements in addition to meeting with their principal and counselor along with developing a portfolio that contains:

- A 5 year plan which explains career plans and includes how this option will enhance career plans.
- Signatures from parent/guardian stating agreement with the student's request.
- An academic package, which includes a transcript, test scores, college/career readiness indicator, 5 year plan, and attendance records.

See school counselor for more details and forms.

General Information

Guidelines for Students Planning to Attend College or Technical School

This section includes general guidelines that may help students plan a high school program of studies to prepare for admission to postsecondary school. However, college admissions requirements, curriculum, and majors change from one year to the next; therefore, students are encouraged to make use of the more specific information on particular colleges available in the counseling center or on the colleges' website.

Public Two-Year Colleges in Maryland

Maryland's public community colleges, such as Howard Community College, have an open door admission policy. This means that students who are graduates of accredited Maryland high schools are admitted to at least a general program of studies. Most of these schools also require the students to take a placement test as part of the admissions process, usually in English and mathematics. Results of these placement tests may require students to enroll in developmental noncredit courses until they meet basic proficiency levels.

Technical Schools, Private Junior Colleges and Out-of-State 2-Year Colleges

Many of these institutions, especially the technical schools, have an open door admission policy, which means that a student with a GED or a diploma from an accredited Maryland high school will be admitted. However, these admission standards do vary, and it is best to contact the individual school directly or check its website for specific requirements.

Other Colleges and Universities

Admission requirements vary greatly depending on the academic standing of the school and/or a student's intended major. For most of these schools, a student needs at least to meet the University System of Maryland requirements (see page 18). The higher the admissions standards, the more likely the school will have more rigorous course requirements and would expect the student to take courses at the G/T level during high school. The best way to plan a curriculum for these schools is to check current sources of information from the high school's Student Services Department or from the college itself.

The University System of Maryland

The high school coursework requirements below are the minimum standards for students seeking admission to the following University System of Maryland institutions:

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

University System of Maryland Required Coursework	
Subject	Number of Course Credits
English	4
Lab Science	3
Mathematics (Algebra I, Geometry, and Algebra II)	3
Requirement for high school graduating class of 2015 and beyond	4
Social Studies	3
World Language or Advanced Technology Credit (Varies by school)	2
Academic Electives	6

Information about additional requirements for individual campuses and/or programs may be obtained directly from each of the 12 institutions of the University System of Maryland or by consulting resources available in the Student Services Department.

General Information

Jump Start

A dual enrollment partnership between
HCPSS and HCC to expand options for students.

Gain college credits, explore possible careers, or earn an associate degree.

Which program is right for you?	
Flexible Programs	Structured Programs
Explore careers and interests, gain exposure to college coursework, and increase college success. Take one or two classes per semester, at your high school or on the Howard Community College (HCC) campus, with the option to attend HCC full time during your senior year.	Get on the fast track for advanced education by making the commitment to an Early College program starting in ninth or 10th grade. These programs combine high school-based and HCC campus-based dual credit for a structured pathway to high school graduation.
High School-Based College Credit • Take HCC courses¹, taught by college-qualified HCPSS faculty. • Earn college credit and meet high school graduation requirements. • Access all of HCC's campus-based resources. WHO? All HCPSS high school students. WHERE? Classes are taught at all high schools and vary by location	Early College 30 and 60 Credit Option • Choose from associate degree track programs in STEM (science, technology, engineering, mathematics), cybersecurity, computer science, criminal justice, entrepreneurship, general studies, secondary teaching, public health or health sciences. • Graduate from high school with 30 college credits or more. • Complete your associate degree at HCC within one year of high school graduation, or transfer credits to another higher education institution. • Access all of HCC's campus-based resources. WHO? Rising ninth or 10th grade students who can commit to an accelerated program of study. WHERE? Visit www.hcpss.org/Jumpstart for most up-to-date information.
HCC Campus-Based College Credit • Take one or more college courses^{1, 2} at HCC. • Earn credits toward your college degree. Some credits may also count toward high school graduation. • During senior year, you may be eligible to enroll at HCC as a full-time student. Talk to your school counselor for more information. WHO? All HCPSS high school students. Admission for eighth grade students will be considered on a case-by-case basis. WHERE? HCC. For the most up-to-date dual enrollment opportunities, please visit www.hcpss.org/jumpstart.	

1 Prerequisites may be required for enrollment in some courses.

2 Semester start dates for HCC campus-based courses may differ from HCPSS start dates. Students enrolled in HCC campus-based classes will follow the HCC calendar, with fall semester beginning earlier than HCPSS.

3 Transferability of credits may vary depending on the course and the college or university.

General Information

JumpStart Dual Enrollment Course Offerings

The JumpStart Dual Enrollment program is a collaboration between Howard Community College and Howard County Public School System to provide expanded access for students to earn college credits in a nurturing and inclusive environment. Several courses taken on Howard Community College's Campus can be brought back for HCPSS course credit. By participating in the JumpStart Dual Enrollment program, students and families acknowledge that certain conditions may apply, including, but not limited to, applicable tuition and fee charges, FERPA agreement, and differences in accommodations for students receiving special education services. Some courses may require prerequisites. A student is required to receive pre-approval from their high school counselor to receive HCPSS credit for a course taken on HCC's campus. Students and families are encouraged to work closely with their school counselor to determine what JumpStart Dual Enrollment opportunities are a good fit for the student.

ACCT-111	Principles of Accounting I
AMSL-101	Elementary American Sign Language I
AMSL-102	Elementary American Sign Language II
AMSL-201	Intermediate American Sign Language I
AMSL-202	Intermediate American Sign Language II
ANTH-104	Introduction to Physical Anthropology
ANTH-105	Introduction to Cultural Anthropology
ARAB-101	Foundational Arabic
ARAB-102	Foundational Arabic II
ARAB-201	Intermediate Arabic
ARAB-202	Intermediate Arabic II
ARTS-101	Two-Dimensional Art and Design
ARTS-102	Three-Dimensional Art and Design
ASTR-104	Elementary Astronomy
ASTR-114	Elementary Astronomy Lab
BMGT-100	Introduction to Business and Organization
CHEM-101	General Inorganic Chemistry I
CHEM-102	General Inorganic Chemistry II
CHNS-101	Foundational Mandarin Chinese I
CHNS-102	Foundational Mandarin Chinese II
CHNS-201	Intermediate Mandarin Chinese I
CHNS-202	Intermediate Mandarin Chinese II
ECON-101	Principles of Economics (Macro)
ECON-102	Principles of Economics (Micro)
EDUC-110	Introduction to Education
EDUC-111	Child Growth and Development
EDUC-130	Introduction to Early Childhood Education
ENGL-121	College Composition
ENGL-207	Ethics in Literature

ENGL-210	Intro to Fiction, Poetry and Drama
ENST-105	Environmental Science
ENST-115	Environmental Science Lab
FREN-101	Foundational French I
FREN-102	Foundational French II
FREN-201	Intermediate French I
FREN-202	Intermediate French II
GEOG-102	Elements of Cultural Geography
GEOL-107	Intro to Physical Geology
GERM-101	Foundational German I
GERM-102	Foundational German II
GERM-201	Intermediate German I
GERM-202	Intermediate German II
HBRW-101	Foundational Hebrew
HBRW-102	Foundational Hebrew II
HBRW-201	Intermediate Hebrew
HBRW-202	Intermediate Hebrew II
HIST-112	American History since 1877
HIST-121	The Ancient World: Prehistory to the Middle Ages
HIST-132	Modern World History
HIST-210	History of Latin America
HMGD-120	Food Preparation I
HNDI-101	Foundational Hindi
HNDI-102	Foundational Hindi II
HNDI-201	Intermediate Hindi
HNDI-202	Intermediate Hindi II
JPNS-101	Foundational Japanese
JPNS-102	Foundational Japanese II
JPNS-201	Intermediate Japanese
JPNS-202	Intermediate Japanese II
KORE-101	Foundational Korean
KORE-102	Foundational Korean II
KORE-201	Intermediate Korean
KORE-202	Intermediate Korean II
MATH-067	Review of Algebra and Geometry Apps
MATH-070	Intermediate Algebra
MATH-138	Statistics
MATH-141	College Algebra

MATH-143	Precalculus I
MATH-145	Business Calculus
MATH-153	Precalculus II
MATH-155	Precalculus I and II
MATH-181	Calculus I
MATH-182	Calculus II
MATH-220	Discrete Structures
MATH-260	Differential Equations
METO-111	Meteorology
MUSA-107	Music Technology in Society
MUSA-140	Introduction to Music Technology and Entrepreneurship
PERS-101	Foundational Persian
PERS-102	Foundational Persian II
PERS-201	Intermediate Persian
PERS-202	Intermediate Persian II
PHIL-103	Introduction to Ethics
PHIL-201	Religions of the World
PHYS-103	Fundamentals of Physics I
PHYS-104	Fundamentals of Physics II
PHYS-106	Foundational Mandarin Chinese II
PHYS-110	General Physics I (Calculus)
PHYS-111	General Physics II (Calculus)
PHYS-120	Oceanography
PHYS-121	Oceanography Lab
POLI-201	Comparative Government
PSYC-101	General Psychology
RUSS-101	Foundational Russian I
RUSS-102	Foundational Russian II
RUSS-201	Intermediate Russian I
RUSS-202	Intermediate Russian II
SOCI-101	Introduction to Sociology
SPAN-101	Foundational Spanish I
SPAN-102	Foundational Spanish II
SPAN-201	Intermediate Spanish I
SPAN-202	Intermediate Spanish II
TURK-101	Foundational Turkish I
TURK-102	Foundational Turkish II
TURK-201	Intermediate Turkish
TURK-202	Intermediate Turkish II
WMST-193	Introduction to Women's Studies: Women, Art, and Culture

General Information

Opportunities for HCPSS Families to Access Free or Discounted Programs and Services

Fee Waivers

A student's participation in the Free and Reduced-Price Meal program qualifies students for numerous opportunities and resources.

See the National School Lunch Program/School Breakfast Program Application for income eligibility guidelines (www.hcpss.org/food-services/farms). Applications can be mailed to the address on the back of the form or returned to school.

See school counselor for more information or if assistance is needed.

Career Academies

General Information

Introduction

The Howard County Public School System offers a path for students interested in studying specific career areas while in high school. This section of the Catalog of Approved High School Courses will provide guidance regarding course selection, academy prerequisites, special requirements, and information needed to complete each Career Academy Program.

What is a Career Cluster?

Career Clusters encompass a range of careers based on essential economic activities, similar interests, common skills, and training required by those in the field. It is a way to organize teaching and learning to meet the specific needs and resources in broad career areas, grouping similar occupations. Essential knowledge and skills are taught to students in order to graduate fully prepared for further education and careers in the 21st-century global economy. For example, within the Health and Biosciences Cluster, you will find five different Career Pathways all centered around health careers.

What is a Career Academy?

A Career Academy provides an opportunity for a group of students to enroll in a specific set of courses associated with a designated career area. Each Career Academy has the following components:

What are the benefits of joining a Career Academy?

- A recommended sequence of courses.
- A capstone project, a work site experience, a research project studying careers in the academy area, or some other experience in which students learn more about the career cluster with which the academy is affiliated.
- A demonstrated need for employees within the Career Cluster.
- An advisory board consisting of business leaders in the Career Cluster.

Students participating in a Career Academy have a clear path for graduation. Each academy meets all graduation requirements and prepares students for post-secondary education and/or the world of work. While in the academy, students have an opportunity to participate in special activities and events that provide greater awareness of the specific career area and opportunities within that area. Academy participants are part of a small group of students with similar interests completing courses together. An advisor and business mentor is provided to answer questions and help each student as they complete their high school experience. Students completing the requirements for the academy receive a certificate.

Where are the Career Academies located?

As you read through the academy information, you will notice that some academies are located in each local high school, while others are located at the Applications and Research Lab (ARL). If the Career Academy is located at each high school, all coursework will be taught there. Students who participate in an academy located at the ARL will complete all academic coursework at their local high school and will complete academy courses at the ARL. Bus transportation will be provided daily to and from the ARL.

Career Academies

Are all school-based Career Academy programs offered at every high school?

School-based Career Academy programs (Accounting Academy, Business Management Academy, Career Research and Development Academy, Computer Programming Academy, Culinary Science Academy, Engineering: Project Lead the Way Academy, Marketing Academy, and Teacher Academy of Maryland) are offered at each high school and run based on student enrollment. Check with the school counselor to determine the availability of Career Academy programs in your school. JROTC Academy is offered at three high schools: Atholton High School (Army), Howard High School (Army), and Oakland Mills High School (Air Force).

Which academy is right for me?

Career Academies have been created to provide all high school students with a unique opportunity for in-depth exploration of an area of interest. If you are unsure if a Career Academy is right for you, you may want to enroll in Career Research and Development I (CRD I), where you will be able to learn more about your interests and aptitudes. You may also want to speak with your school counselor, the teacher at your school who teaches the academy courses.

Can I earn college credits and/or industry certification through a Career Academy program?

Many of the Career Academies are articulated with specific postsecondary institutions in the area. Several academy courses offer dual enrollment with Howard Community College. If a student successfully completes a specific Career Academy, the student may earn college credits and start their college education with advanced standing. In addition, many of the Career Academies prepare students to take industry certification examinations. By successfully passing these examinations, a student will be better prepared to enter the world of work ready to succeed.

What do I do next?

If a student is entering grades 9 or 10, make sure that the courses associated with the Career Academy of choice are part of the four-year high school plan and be sure to complete the required prerequisites prior to beginning academy courses. Contact the school counselor for additional information.

Can I enroll in other elective classes, such as Band, and still be in a Career Academy?

Each Career Academy sequence has space for students to sign up for other electives. There is room in every Academy suggested schedule for any student to take classes such as Band, Art, or Music.

Whom do I contact if I have other questions?

Start with the school counselor. For other questions, call the Office of Career and Technical Education at **410-313-6629**.

Accounting Academy

Location: All academy coursework is taught at the high school.

Summary

The Accounting Academy is designed for students who have an interest in expanding their understanding and skills related to accounting and financial management. Coursework will provide students the opportunity to study and apply the fundamental accounting principles in a variety of business settings. Students will work in a lab setting utilizing current accounting software. Benefits to Accounting Academy students include a focused course of study, connections with the local professional accounting community, and opportunities to participate in activities created exclusively for academy members.

Recommended Electives

- Business Calculus - G/T
- Principles of Marketing - Honors
- Two years of World Language

Prerequisites

- Completion of Algebra I prior to enrollment in academy coursework.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a large-scale accounting simulation during the senior year.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Elective
Fine Arts	Elective	Elective	Elective
Technology Education	Principles of Business and Management G/T CT-415-CC	Principles of Accounting and Finance – Honors CT-420-1	Advanced Accounting and Finance – Honors CT-430-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Accounting Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Community College of Baltimore County (CCBC).

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Accounting Clerk Bookkeeper Payroll Clerk	Auditor Budget Analyst Controller Financial Advisor Risk Manager Tax Accountant	Certified Public Accountant Chief Financial Officer Forensic Accounting

Aerospace Engineering:

Project Lead the Way (PLTW) Academy

Location: Junior and senior level academy courses are taught at the ARL.

Summary

The high school Aerospace Engineering: Project Lead the Way (PLTW) Academy is a two-year sequence of courses which, when combined with traditional mathematics and science courses, introduces students to the scope, rigor and discipline of aerospace engineering prior to entering college. In 11th grade, students learn and apply the engineering design process through coursework in Aerospace I G/T, PLTW Introduction to Engineering Design, and PLTW Engineering Essentials courses. In 12th grade, students extend their knowledge of the engineering design process in Aerospace II G/T, which includes course material from PLTW Principles of Engineering, PLTW Digital Electronics, PLTW Aerospace Engineering, and PLTW Engineering Design and Development courses. Students work in teams to design and construct a solution to an open-ended engineering problem. A mentoring engineer guides students throughout the process. Students 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.

Recommended Electives

- Science electives
- Two years of World Language

Prerequisites

Aerospace Engineering Academy students must enter the program in the 11th grade and must have completed Geometry as a minimum level mathematics course.

Successful Academy Students:

- Maintain a C average in all academy coursework.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Science Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Health II/Elective*	Aerospace II - G/T CT-615-3
Fine Arts	Elective	Aerospace I – G/T CT-605-2**	
Lifetime Fitness/Health I	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

** Meets Computer Science, Engineering or Technology Education graduation requirement

College Credit

In this program students may be eligible for articulated/transcripted credit with many four-year colleges and universities. See the PLTW website for current articulation agreements at www.pltw.org.

Industry Certification

There are no formal certification tests given; however, students who have taken high school engineering courses and/or received transcripted college credit have demonstrated their commitment to a rigorous, challenging program. They are prime candidates for a college or university engineering program. Students are encouraged to interview with the head of college programs to discuss what they have learned in high school and what college courses would be appropriate.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Engineering Technician	Aerospace Engineer Aeronautical Engineer Electrical Engineer Mechanical Engineer	Scientist Nuclear Engineer

Agricultural Science Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

This Academy introduces students to the world of agriculture and its career pathways as well as offering a variety of experiences that will provide an overview of the field of agricultural science, with a foundation in animal and plant science. Students will experience hands-on activities, projects, and problems that involve the study of the sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. Students will learn the characteristics of animal and plant science and work on major projects and problems similar to those that veterinarians, zoologists, horticulturists, agronomists, greenhouse and nursery managers, animal and plant researchers, and food scientists face in their respective careers. Students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning.

Recommended Electives

- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a worksite experience (students must provide their own transportation) OR participate in on-campus course of advanced skills, which includes a capstone project.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Tech. Ed. Requirement	Fine Arts Requirement	Health II/Elective*	Agricultural Science II – G/T CT-752-3
Lifetime Fitness/Health I	Elective	Agricultural Science I – G/T CT-750-2	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who complete the academy and earn a “B” average or better are eligible to earn three elective credits for successful presentation of the MD capstone project at the Institute of Applied Agriculture at the University of Maryland. Students are eligible to earn up to three credits toward specific degree programs at Delaware Valley University, Community College of Baltimore County (CCBC), St. Mary’s College of Maryland, and Rutgers University.

Industry Certifications

There are no formal certification tests given; however, students who have taken high school agricultural and natural resources course credit have demonstrated their commitment to a rigorous, challenging program. They are prime candidates for a college or university agricultural and natural resources program. Students are encouraged to interview with the head of college programs to discuss what they have learned in high school and what college courses would be appropriate.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Animal Care and Service Workers Building and Ground Cleaning Maintenance Environmental Science Technicians Farm and Home Management Advisors Forest and Conservation Technicians Landscape and Grounds Keeping Workers Tree Trimmers and Pruners Veterinarian Technologists and Technicians Veterinarian Assistants and Laboratory Animal Caretakers	Agricultural Science Teacher Agricultural Engineer Environmental Engineer Landscape Architects Zoologists and Wildlife Biologists	Animal Scientists Conservation Scientists Microbiologists Veterinarians

Animation and Interactive Media Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The Animation and Interactive Media Academy is designed for students who have an interest in digital art. Students have the opportunity to combine creative abilities with technical skills using industry standard techniques and software. They work both independently and in teams in the areas of problem solving, portfolio development, and artistic promotion.

This academy emphasizes narrative and non-narrative story telling, pitch creation, video production, 3D graphics, and their applications in video games, animation, and simulation.

Recommended Electives

- Art II
- Photography

Prerequisite

- Art I

Successful Academy Students:

- Maintain a C average in all academy coursework.

Senior Level Coursework Requirements:

- Choose a real-world problem to research
- Maintain and submit a journal and portfolio of senior work.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Animation and Interactive Media II CT-798-3
Technology Education	Art I	Animation and Interactive Media I CT-796-2	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully earn the Animation and Interactive Media Academy program sequence, with a grade of B, or higher in academy courses, may be eligible for credits at Howard Community College.

Industry Certifications

Students have the opportunity to earn Adobe Premier Pro and Maya certification.

Sample Career Options			
< 4-Year Degree	4-Year Degree		> 4-Year Degree
Illustrator Web Designer Quality Assurance	Animator Character Designer Game Designer Motion Graphic Designer	Script Writer Technical Artist Video Editor Video/TV Producer	Animation Director Lead Game Designer Lead Animator Feature Director

Apprenticeship Maryland Academy

Location: Junior and senior level academy courses are taught at the ARL.

Summary

The Apprenticeship Maryland Program (AMP) is for senior high school students, ages 16 and up, who are interested in employment and further education based on a career pathway in Science, Technology, Engineering, and Mathematics (STEM) related fields as well as traditional occupations.

This academy is an approved Career and Technical Education completer pathway for graduation that is completed during the senior year.

General Requirements

Students must:

- Work a minimum of 450 hours (20 + hours a week)
- Complete one year of related classroom instruction
- Provide own transportation to work site

The Apprenticeship Maryland Academy is individualized for each student depending upon work schedules. Students may begin their day at work and take required classes in the afternoon or evening. (i.e. English and Mathematics).

Benefits of the Program

Students will:

- Enter the workforce while still in high school
- Earn a salary
- Gain marketable industry skills
- Be assigned a highly skilled mentor
- Receive a State Skill Certificate from the Maryland Department of Labor (MDOL).

Students interested in participating in the program, complete the online student form which is located on the HCPSS Apprenticeship Maryland Program page. <https://www.hcpss.org/academy/apprenticeship/>

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I/DA or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Apprenticeship Industry Instruction CT-590-1 Apprenticeship Work-Based Learning CT-595-3
Technology Education	Fine Arts	Health II/Elective *	
Life Fitness/Health I	Elective	Elective	
Elective	Elective	Elective	

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Apprenticeship I Industry Instruction may include completing a college course through the employer at a local post secondary institution.

Industry Certification

The Apprenticeship Maryland Program is targeted at STEM fields and allows students to “earn while they learn.” The program is intended for students who may want to remain in the Howard County and surrounding area and continue working within the industry. Students may earn industry certifications as identified by the employer.

Sample Career Options		
The STEM-related occupations include entry level positions in these areas:		
• Construction and Design • Consumer Services, Hospitality	• Environment, Agriculture and Natural Resources • Human Resource Services	• Information Technology • Transportation Technologies
Employers are approved by the Maryland Department of Labor and will be posted on the Apprenticeship Maryland Program website.		
MSDE website: http://marylandpublicschools.org/programs/Pages/CTE/ApprenticeshipMD.aspx		
The MDOL website: http://www.dllr.maryland.gov/aboutdllr/youthappr.shtml		

Architectural Design Academy

Location: Junior and senior level academy courses are taught at the ARL.

Summary

This program will introduce the basic principles and methods of design as applied to architecture. Basic design theories and strategies related to the development of spatial concepts in architectural design, including composition, color, form, and relationship of elements will be applied in the development of 2-D and 3-D design projects. This course further emphasizes the architectural design process while relating these principles to general construction practices.

Recommended Electives

- Science electives
- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a work-site experience (students must provide their own transportation) **OR** by participating in the on-campus (ARL) course of advanced skills, which includes a capstone project.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Fine Arts Elective	Elective	Health II/Elective*	Advanced Architectural Design-Honors CT-734-3
Lifetime Fitness/Health I	Elective	Architectural Design CT-730-2	
Technology Education	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Architectural Design Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College.

Industry Certification

Students have the opportunity to earn the Autodesk CAD and/or Revit certification.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Building Codes Inspector CADD Technician Construction Manager Drafter Real Estate Manager	Architect Civil Engineer Engineer (all types) Land Surveyor	Urban and Regional Planner

Automotive Technology Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The Automotive Technology academy combines technical, academic and workplace skills in an integrated curriculum in accordance with all National Automotive Technicians Education Foundation (NATEF) guidelines. This academy prepares students for further education and careers in automotive technology and consists of four required areas of study for program certification: suspension and steering, brakes, electrical systems, and engine performance. Each area provides the student with the knowledge and skills necessary to pass the end-of-course assessments and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary troubleshooting and repair tasks.

Recommended Electives

- Algebra II
- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete 40 clock hours of a work-based learning experiences at a certified automotive facility during the summer prior to senior year. Students will complete hours after school or in the summer depending on mentor and student schedules. Students are required to provide their own transportation to and from the internship site.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Fine Arts	Health II/Elective*	Automotive Technology II CT-738-3
Technology Education	Elective	Automotive Technology I CT-736-2	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Automotive Technology Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Community College of Baltimore County (CCBC) or Pennsylvania College of Technology.

Industry Certification

Students have the opportunity to earn Automotive Service Excellence (ASE) certification exams in the four areas offered in this program: Brakes, Steering and Suspension, Maintenance and Light Repair, Electrical and Electronic Systems, and Engine Performance.

Sample Career Options		
< 4-Year Degree		4-Year Degree
Automobile Lead Technician	Automobile Service Technician	Upper-Level Automobile Position
Automobile Master Mechanic	Automobile Speciality Technician	
Automobile Service Advisor	Automobile Team Leader	

Biotechnology Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

Biotechnology is the use of cells and molecular biology to manufacture products or solve scientific problems. Biotechnology is one of the fastest growing fields in today's scientific community and is used by biologists, forensics scientists, and doctors. Biotechnology is laboratory and math intense, and requires critical thinking. The Biotechnology Academy gives students a solid academic foundation and necessary laboratory skills for future scientific pursuits. Students use modern laboratory equipment at the Applications and Research Laboratory to perform cutting edge experiments.

Recommended Electives

Students seeking a four-year postsecondary institution are advised to enroll in Biology AP.

Corerequisites

- Chemistry G/T
- Algebra II

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a senior level coursework through a work-site experience (students must provide their own transportation) **OR** by participating in the on-campus (ARL) course of advanced skills, which includes a capstone project.

Senior Level Coursework Requirements:

- Complete at least 8-10 hours of work-site experience per week **OR** daily attendance at the Applications and Research Lab.
- Attend weekly senior seminars at the Applications and Research Lab.
- Choose a real-world problem to research.
- Write and submit a research proposal, abstract, and reflection paper based on research.
- Maintain and submit a journal and portfolio of senior work.

Industry Certification

Students have the opportunity to earn the Biotechnician Assistant Credentialing Exam (BACE) certification.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Science Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts	Health II/Elective*	Biotechnology II – G/T CT-655-3
Lifetime Fitness/Health I	Elective	Biotechnology I – G/T CT-645-2	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Sample Career Options					
< 4-Year Degree		4-Year Degree		> 4-Year Degree	
Animal Technician	Production Technician	Biochemist	Pharmaceutical Sales Rep.	Agricultural Bioengineer	Pharmacist
Bench Technician	Quality Control Specialist	Biomedical Engineer	Quality Manager/Technician	Bioinformatics Analyst/Engineer	Physician
Biotechnology Laboratory Assistant	Research Assistant	Chemical Engineer	Research Technician	Biostatistician	Plant Pathologist
Document Specialist		Laboratory Technician	Technical Writer	Forensic Scientist	Quality Control Director
Medical Lab Technician		Medical Technologist		Geneticist	Research Scientist
Process Engineer		Microbiologist		Medical Review Officer	Veterinarian

Business Management Academy

Locations: All academy coursework is taught at the high school.

Summary

In the Business Management Academy students will learn effective decision-making techniques in financial management, business communication, problem-solving, teamwork, and networking skills. Human resource topics such as diversity in the workplace, ethics, employer/employee rights, discrimination, accountability, time management, and setting priorities will be covered. Students will work on portfolio development opportunities and are encouraged to participate in the national Career Technical Student Organization (CTSO) organization, FBLA.

Successful Academy Students:

- Maintain a C average in all academy coursework.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I /DA or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Life Fitness/Health I	Elective	Health II/Elective*	Elective
Fine Arts	Elective	Elective	Elective
Technology Education	Principles of Business and Management G/T CT-415-CC	Principles of Accounting and Finance-Honors CT-420-1	Advanced Business Management CT-440-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Industry Certification

Students are offered the opportunity to sit for the MBA Research and Curriculum Center A*S*K Certification.

College Credit

Students are offered the opportunity to take the College-Level Examination Program® (CLEP) exam in Business Management. Upon passing a CLEP exam, students may be eligible to apply towards credits at many colleges or universities.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Accounting Clerk Bookkeeper Payroll Clerk	Auditor Budget Analyst Controller Financial Advisor Risk Manager Tax Accountant	Certified Public Accountant Chief Financial Officer Forensic Accounting

Career Research and Development

Location: All coursework is taught at the high school.

Summary

Career Research and Development is an approved Career and Technical Education program and meets the CTE graduation requirement if taken in the sequence of CRD I, CRD II, and Site-Based Work Experience. Any interested student may take CRD I as a general elective. **NOTE: Students may enroll in CRD I in the sophomore year.**

Career Research and Development empowers students to create a vision of their future through quality academic coursework, progressive career development, and appropriate work opportunities. After a battery of interest, aptitude, and personality assessments, students identify their assets and strengths and apply that knowledge as they investigate Howard County Public School System academy programs, careers, and postsecondary options. Students participating in the Career Research and Development program focus on demonstrating competency in 21st century learning skills. Students who successfully complete the program demonstrate mastery of learning, thinking, communication, technology, and interpersonal skills. Students will develop an individualized portfolio containing examples of completed assignments and/or special projects.

Recommended Electives

- Principles of Business and Management G/T
- Two years of World Language.

Special Requirements

Students taking the CRD program sequence as a completer for graduation must work during their senior year. Students must concurrently enroll in Career Research and Development II while in Site-Based Work Experience. Students must provide their own transportation to the work site.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Health II/Elective*	CRD II CT-520-1
Lifetime Fitness/Health I	Elective	Elective	Site-Based Work Experience
Fine Arts	Elective	CRD I CT-510-1	CT-530-1 CT-530-2

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Career Research and Development program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College.

Sample Assessments/Inventories

Myers-Briggs Personality Inventory

Multiple Intelligences

Holland Self-Directed Search

Armed Services Vocational Assessment Battery

Industry Certification

Students are offered the opportunity to take the Armed Services Vocational Aptitude Battery (ASVAB) test and participate in the ASVAB Career Exploration Program. The ASVAB Career Exploration Program provides a platform for students to conduct interest inventories and career exploration activities that highlight the educational and experiential requirements required for a broad spectrum of career fields.

Career Research and Development

Early College Program (ECP) in Cybersecurity at the ARL

Locations: Sophomore and Junior level students are taught at the ARL. Senior students attend Howard Community College and ARL for Site Based Work Experience.

Summary

Career Research and Development is an approved Career and Technical Education program and meets the CTE graduation requirement if taken in the sequence of CRD I, CRD II, and Site-Based Work Experience. Career Research and Development empowers students to create a vision of their future through quality academic coursework, progressive career development, and appropriate work opportunities. After a battery of interest, aptitude, and personality assessments, students identify their assets and strengths and apply that knowledge as they investigate Howard County Public School System academy programs, careers, and postsecondary options. Students participating in the Career Research and Development program focus on demonstrating competency in 21st century learning skills. Students who successfully complete the program demonstrate mastery of learning, thinking, communication, technology, and interpersonal skills. Students will develop an individualized portfolio containing examples of completed assignments and/or special projects.

Recommended Electives

- Fine Art and Tech Ed credit taken in 9th grade suggested
- Two years of World Language

Special Requirements

Students taking the CRD program sequence as a completer for graduation must work during their senior year. CRD I and CRD II will be taken as semester courses in the 10th grade year of the program to earn both high school and college credit during the 1st year of the program.

During 12th grade, students will take Site Based Work Experience and must provide their own transportation to the work site.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	Site-Based Work Experience at ARL CT-580-1 CT-580-2 College Coursework at HCC
Algebra I/DA or above	Geometry or above	Algebra II	
Science Requirement	Science Requirement	Science Requirement	
U.S. History	American Government	World History	
Technology Ed. Requirement	Elective	Health II/Elective*	
Lifetime Fitness/Health I	Career Research and Development I CT-560-1	College Coursework at ARL	
Elective	Career Research and Development II CT-570-1		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Industry Certifications

Upon completion of the Early College Program coursework students will have earned Network Pro. Students may earn CompTIA Network + upon completion of HCC coursework. Students are offered the opportunity to take the Armed Services Vocational Aptitude Battery (ASVAB) test and participate in the ASVAB Career Exploration Program. The ASVAB Career Exploration Program provides a platform for students to conduct interest inventories and career exploration activities that highlight the educational and experiential requirements required for a broad spectrum of career fields.

Career Research and Development

Early College Program (ECP) in Cybersecurity at the ARL

College Credit

In order to register for dual credit with HCC, students must have at least a 2.0 unweighted GPA; some courses have additional prerequisites. College (dual) credit is awarded upon successful completion of the course. HCC credits will transfer to Maryland public four-year colleges and universities and most private and out-of-state colleges and universities. See an HCC transfer advisor to plan which courses will be right for you.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Cabling Technician Network Administrator Network Maintenance Technician PC Help Desk/Operator Data Center Technician Help Desk Operator PC Support Technician	CISCO Routing Engineer LAN Specialist Network Design Specialist WAN Specialist PC Service Engineer Project Manager Software Tester Technical Support Engineer	Chief Security Officer Network Engineer Network Systems Analyst Security Analyst Computer Design Engineer Operations System Engineer Systems Architect

Computer Programming Academy

Location: All academy coursework is taught at the high school.

Summary

The Computer Programming Academy is designed for students who have an interest in expanding their understanding and skills of computer science and computer programming concepts. Coursework will expose students to the fundamental principles and technology of object-oriented programming. Students will work in a computer lab to gain hands-on programming experience on both individual and team programming projects. Benefits to academy students include a focused course of study, connections with the local professional computer science community, participation in local, national, and international programming events, and opportunities to participate in activities created exclusively for academy members. The academy course sequence includes one AP Computer Science course.

Recommended Electives

- Calculus AB - AP
- Statistics - AP
- Two years of World Language

Prerequisites

- Completion of Algebra I prior to enrollment in academy coursework.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a large-scale group programming project during the senior year.
- Upon completion of Computer Science A - AP, students are encouraged to take the AP Computer Science A exam.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Geometry or above	Algebra II or above	Mathematical Analysis – Honors, Pre-calculus G/T or above	Mathematics
Science	Science	Science	Science Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Elective
Fine Arts	Elective	Elective	Advanced Data Structures G/T CT-485-1
Computer Science Principles- AP CT-405-1	Principles of Java Programming – G/T CT-465-1	Computer Science A – AP CT-475-1	Advanced Object Oriented Design – G/T CT-495-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Computer Operator Database Analyst Database Tester	Computer Engineer Database Developer Software Architect Software Programmer Software Tester Virtual Reality Developer	Computer Forensics Specialist Computer Scientist Cryptanalyst Intelligence Specialist Project Manager Robotics Engineer

Construction Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The Construction Academy focuses on industry-compliant methods, technology, and safety standards. Students design, plan, direct, coordinate, and budget a variety of projects, including the construction of a residential building. Students will gain the knowledge and skills to prepare them for various careers in construction including project management and supervision, project engineering, contract administration, and safety coordination. In addition to carpentry, students in this program also explore a variety of construction trade areas, such as electrical and plumbing. Participation in an internship that reflects students' interests in the field of construction provides real-world applications of the knowledge and skills learned in the classroom. This National Center for Construction Education Research (NCCER) certified program affords students the opportunity to earn national recognition. The Construction Academy provides students with an excellent foundation for continuing education in the building industry.

Recommended Electives

- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a work-site experience (students must provide their own transportation) OR by participating in the on-campus (ARL) course of advanced skills, which includes a capstone project.

Senior Level Coursework Requirements:

- Complete at least 6-8 hours of work-site experience per week OR daily attendance at the Applications and Research Lab.
- Attend weekly senior seminars at the Applications and Research Lab.
- Choose a real-world problem to research.
- Maintain and submit a journal and portfolio of senior work.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Fine Arts	Elective	Health II/Elective*	Construction Technology II CT-742-2
Lifetime Fitness/Health I	Elective	Construction Technology I CT-740-2	
Technology Education	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Construction Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College or Community College of Baltimore County (CCBC).

Industry Certification

Students can pursue a construction apprenticeship in postsecondary programs to earn NCCER certification.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Building Codes Inspector Carpenter Civil Engineering Technician Construction Manager Electrician	Civil Engineer Cost Estimator Environmental Engineer Land Surveyor Project Manager	Urban and Regional Planner

Culinary Science Academy

Location: All academy coursework is taught at the high school.

Summary

Employing an estimated 12 million people, the restaurant industry is the largest and fastest growing private-sector employer in the United States. Culinary Science Academy students will receive a broad introduction to this dynamic industry through hands-on instruction using **ProStart**, an industry-directed curriculum. Students in the Culinary Science Academy will have opportunities to participate in industry sponsored events and competitions and will receive individual mentoring from restaurant and hospitality professionals. Upon successful completion of the program, students will have the opportunity to take a national certification examination and to apply for National Restaurant Association Education Foundation scholarships toward postsecondary study.

Recommended Electives

- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a capstone project integrating culinary skills with knowledge of customer service and business practices.
- Take Year One and Year Two ProStart Examinations and complete 400 hours of mentored industry experience.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Health II/Elective*	Elective
Lifetime Fitness/Health I	Elective	Elective	Field Experience in Culinary Science CT-917-1 - 1 credit or CT-917-2 - 2 credits
Fine Arts	Food and Nutrition Technology CT-910-1	Culinary Sciences CT-912-1	Advanced Culinary Science and Restaurant Operations CT-914-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

With a passing score on the ProStart Examination, Culinary Academy students may be eligible for articulated credit from local institutions including Anne Arundel Community College, Baltimore City Community College, Howard Community College, Montgomery College, and Morgan State University. Nationally renowned institutions such as Johnson & Wales, The Culinary Institute of America – Hyde Park (CIA), Cornell University, the Art Institutes International, and Florida International University also award college credit for passage of the ProStart examination. This list of postsecondary institutions awarding credit is always growing. For recently added colleges and universities, please visit the following websites: Restaurant Association of Maryland Educational Foundation (www.ramef.org).

Culinary Science Academy

Industry Certification

Students have the opportunity to earn National Restaurant Association Foundation Prostart Certificate of Achievements (COA). The Prostart COA includes passing Level 1 and Level 2 exams and completing 400 hours of employment in an approved worksite.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Dining Room Manager Food and Beverage Sales Food Supplier Host/Server Kitchen Manager Pastry Chef Sous Chef	Catering Director Corporate Trainer Executive Chef Food and Beverage Director Menu Planner Nutritionist Restaurant General Manager	

Cybersecurity Networking Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The Cybersecurity Networking Academy is designed for students who have an interest in expanding their knowledge and skills related to computer hardware, software, operating systems, fundamental and advanced networking, and cybersecurity related threats and mitigation techniques. Students will gain practical hands-on experience in these fields. Students will demonstrate their ability to analyze cyber threats by using networking devices, simulation tools, software, and competitions. These courses prepare students to obtain a wide variety of industry recognized IT certifications.

The Computer Networking pathway provides fundamental computer networking concepts and theory needed to build home and medium-sized business networks. It also provides awareness of cybersecurity related issues and provides an overview of risks and vulnerabilities and focuses on understanding network defense techniques. It also covers protecting and securing confidentiality, integrity, and availability of sensitive information on networks and systems. This pathway prepares students for Cisco CCENT certification.

Cyber Ops pathway provides an introduction to the computer hardware, software, and networks, as well as, in-depth coverage of cybersecurity concepts and techniques needed to help meet the growing demand for entry-level IT professionals. Students learn to describe the internal components of a PC, assemble and fix laptops and desktops. It also focuses on identifying various cybersecurity threats and implementing layers of defense mechanisms against these threats. This pathway prepares students for CompTIA A+ certification and provides an internship/mentorship option.

Recommended Electives

- Two years of World Language.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Participate in student conferences and job shadowing.
- Complete a large-scale networking project during the senior year.
- Consider taking the CISCO Certified Network Associate Exam.
- Practice making responsible decisions to be better prepared for security clearance and background checks required in cybersecurity and computer networking career fields.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Health II/Elective*	Cybersecurity and Computer Networking II – G/T CT-695-3 OR Cybersecurity Networking Essentials-CT-792-3 Honors
Lifetime Fitness/Health I	Elective	Cybersecurity and Computer Networking I – G/T	
Elective	Elective	CT-685-2 OR Cybersecurity Computer Essentials CT-790-2	

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Senior Level Coursework Option:

- Students will have the option to complete 6-8 hours of work site experience (Students must provide own transportation) OR by participating in on campus (ARL) course of advanced skills which includes a capstone project.

Cybersecurity Networking Academy

College Credit

Students who successfully complete all Computer Networking pathway (CT-685-2 and CT-795-3) coursework with a grade B or higher, are eligible for credits at Howard Community College.

Students who successfully complete all Cyber Ops pathway (CT-790-2 and CT-792-3) coursework with a grade of B or higher, are eligible for credits at Howard Community College.

Industry Certifications

Upon completion of the Computer Networking pathway experience, students will be prepared to take the CompTIA Net+, Security +, and Cisco Certified Network Associate (CCNA) certification exams. Upon completion of the Cyber Ops pathway experience, students will be prepared to take the CompTIA IT Fundamentals, CompTIA A+, and CompTIA Net+ certification exams.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Cabling Technician Network Administrator Network Maintenance Technician PC Help Desk/Operator Data Center Technician Help Desk Operator PC Support Technician	CISCO Routing Engineer LAN Specialist Network Design Specialist WAN Specialist PC Service Engineer Project Manager Software Tester Technical Support Engineer	Chief Security Officer Network Engineer Network Systems Analyst Security Analyst Computer Design Engineer Operations System Engineer Systems Architect

Engineering: Project Lead the Way (PLTW) Academy

Location: Academy coursework is taught at the high school.

Summary

The high school Engineering Academy is a four-year sequence of five courses which, when combined with traditional mathematics and science courses, introduces students to the scope, rigor, and discipline of engineering prior to entering college. In grades 9, 10, and 11, students build a foundation of pre-engineering knowledge and skills. In the senior year, students take PLTW Engineering Design and Development, where they design and build solutions to authentic engineering problems. These self-directed projects are mentored by engineers. For more information go to www.pltw.org.

Recommended Electives

- Science electives.
- Two years of World Language.

Prerequisite

Engineering Academy students must enter the program in the ninth grade.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Maintain a C average in mathematics.

In the senior year PLTW Engineering Design and Development course, 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 mentoring engineer. 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.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Science Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Health II/Elective*	Elective
Lifetime Fitness/Health I	Fine Arts	PLTW Digital Electronics – G/T CT-825-1	Elective
PLTW Introduction to Engineering Design – G/T CT-805-1 (Technology Education Graduation Credit)	PLTW Principles of Engineering – G/T CT-815-1 OR PLTW Computer Integrated Manufacturing – G/T CT-835-1**	PLTW Computer Integrated Manufacturing – G/T CT-835-1 OR PLTW Principles of Engineering – G/T CT-815-1**	PLTW Engineering Design and Development – G/T CT-845-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

** Contact your high school for which sequence is offered.

College Credit

In this program, students may be eligible for articulated credit with many four-year colleges and universities. See the PLTW website for current articulation agreements. (<http://www.pltw.org>)

Industry Certification

There are no formal certification tests given, however, students who have taken high school engineering courses and/or received transcribed college credit have demonstrated their commitment to a rigorous, challenging program. They are prime candidates for a college or university engineering program. Students are encouraged to interview with the head of college programs to discuss what they have learned in high school and what college courses would be appropriate.

Sample Career Options				
< 4-Year Degree	4-Year Degree			> 4-Year Degree
Engineering Technician	Chemical Engineer Civil Engineer Electrical Engineer Industrial Engineer	Manufacturing Engineer Materials Engineer Mechanical Engineer Process Engineer	Quality Engineer Software Engineer	Scientist Nuclear Engineer

Finance, Academy of

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

Established in Howard County in 1999, the Academy of Finance (AOF) is a member program of the National Academy Foundation. The AOF introduces students to the broad career opportunities in the business and financial services industries and, in the process, equips them to make sound post-secondary and career choices. The AOF curriculum is a comprehensive, standards-based sequence of courses addressing industry-specific knowledge and general workplace competencies. Academy students will have the opportunity to develop relationships with local business leaders and to apply their skills in an internship experience. Students will be paired with a business professional who will serve as a mentor throughout their junior and senior year.

Recommended Electives

Students planning to attend a four-year, postsecondary institution are advised to take at least two years of World Language.

Prerequisites

- Completion of Algebra I prior to enrollment in academy coursework.

Successful Academy Students:

- Maintain a C average in academy coursework.
- Participate in job shadowing and student workshops.
- Complete a semester internship during the spring of their senior year.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Academy of Finance II – G/T CT-635-3
Fine Arts	Elective	Academy of Finance I – G/T CT-625-2	
Technology Education	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Accounts Clerk Bank Teller Brokerage Clerk Collector	Bank Branch Manager Contract Underwriter Financial Advisor Financial or Budget Analyst Loan Officer Portfolio Administrator Stockbroker	Actuary Campaign Manager Chief Financial Officer Chief Operating Officer Comptroller Economist Statistician

Graphic Design Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The Graphic Design Academy is designed for students who have an interest in digital art. Students have the opportunity to combine creative abilities with technical skills using industry standard techniques and software. They work both independently and in teams in the areas of problem solving, portfolio development, and artistic promotion. This academy emphasizes publication design, advertising, and web design. Concepts in illustration, digital imaging, and videography are also covered.

Recommended Electives

Students interested in the Visual Communications industry may also consider enrolling in Art II, Photography, and/or Physics.

Prerequisite

- Art I

Successful Academy Students:

- Maintain a C average in all academy coursework.

Senior Level Coursework Requirements:

- Graphic Design pathway only – complete at least 6–8 hours of work-site experience per week (students must provide their own transportation) and attend weekly senior seminars at the Applications and Research Lab OR daily attendance at the Applications and Research Lab.
- Choose a real-world problem to research
- Maintain and submit a journal and portfolio of senior work

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Advanced Graphic Design – G/T CT-725-3
Technology Education	Art I	Art II	
Elective	Elective	Graphic Design I – G/T CT-715-2	

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Graphic Design Academy program sequence, with a grade of B or higher, and Art II, may be eligible for credits at Howard Community College. Students are encouraged to work on submitting an AP Studio Art in 2D Design portfolio for college credit.

Industry Certification

Students have the opportunity to earn PrintEd certification.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Desktop Publisher Graphic Designer Illustrator Web Page Designer	Animator Art Director/Creative Director Game Designer Motion Graphics Pre-press Technician Production Artist Video Editor Video/TV Producer	Animation Director Graphic Design Firm CEO Lead Designer

Health Professions, Academy of

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

Students will focus on the broad spectrum of health careers by identifying and demonstrating the necessary skills and behaviors needed to succeed in the technologically advanced world of medicine. Students will explore various career opportunities through hands-on training in basic medical skills, medical equipment use, and patient contact and communication. Areas of study include:

- Professional behaviors of healthcare workers
- Ethical and legal considerations of healthcare providers
- Human body structure and function
- Human development and basic needs

Students will rotate through various health sites and sample specialized health fields to help choose a specific direction in a health-related career.

Recommended Science Courses and Electives

- Anatomy and Physiology
- Biology AP
- Two years of World Language

Prerequisites

- Biology, Biology G/T
- Algebra I

NOTE: Students interested in Certified Nursing Assistant must have a C average or higher in both Biology and Algebra I.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a work-site or clinical experience (students must provide their own transportation).

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Fine Arts	Health II/Elective*	Clinical Research in Allied Health - Honors CT-762-3 Or Certified Nursing Assistant: Theory and Clinical CT-764-3 Or Emergency Medical Technician: Basic and Clinical CT-766-3 Or Physical Rehabilitation- Honors CT-768-3
Technology Education	Elective	Foundations of Health Care – Honors CT-760-2 (2)	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Health Professions, Academy of

Senior Level Coursework Options:

After completion of junior level academy courses students have the option of enrolling in one of three pathways:

Clinical Research in Allied Health

This pathway offers students a clinical worksite experience in an allied health field of their interest. Students will be engaged in a real-world experience while also establishing a core understanding of the fundamentals of evidenced based research and writing. Students may also choose to pursue further education in the fields of Physical Medicine and Rehabilitation or Pharmacy Technician training. Each of these specialties will include selective curriculum along with an internship experience.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete at least 6-8 hours of work-site experience per week OR daily attendance at the Applications and Research Lab.
- Attend weekly senior seminars at the Applications and Research Lab.
- Choose a real-world problem to research.
- Write and submit a research proposal, abstract, and reflection paper based on research.
- Maintain and submit a journal and portfolio of senior work.
- Present a culminating multimedia presentation for the final grade.

Certified Nursing Assistant (CNA)

Prepares students to function as a nursing assistant in a variety of health care settings. This academy has been approved by the Maryland Board of Nursing and provides training in life span development, vital signs, basic patient care skills, disease processes, and communication skills. All coursework must be successfully completed to receive a Howard County Community College Certificate of Completion. Upon successful completion of the theory and clinical coursework, students are eligible to take the State Geriatric Examination to become a CNA with a specialty in geriatrics (GNA). The knowledge and competencies learned in this academy are valuable in pursuing any health care career. Immunizations, literacy screening, and criminal investigation are required prior to clinical placement.

Successful Academy Students:

- Maintain a C average in all academy coursework. Only students who have successfully completed classroom goals and objectives will be recommended for clinical experience.
- Complete state-mandated attendance and performance standards during the program.
- Attend an orientation session during May of the junior year.
- Complete 60 hours of clinical experience **during the school year**. Clinical hours will be completed on weekends.
- Are 16 years or older prior to participation in clinical experiences.
- Complete criminal background check prior to participation in clinical experiences.
- Maintain up-to-date immunizations before participation.
- Provide own transportation to all clinical experiences.

Emergency Medical Technician

Prepares students to have the emergency skills to assess a patient's condition and manage medical and trauma emergencies. The classes provide classroom and clinical experiences. The Emergency Medical Technician Academy is the result of a partnership between Howard County Public Schools and Howard County Department of Fire and Rescue Services.

Prior to admission to the academy, students must complete an application to the EMT academy and an interview by Fire and Rescue staff. A physical examination must also be completed prior to acceptance.

Successful Academy Students:

- Complete national attendance and performance standards during the program. To meet the 225 hours of required content level classwork, and sit for credentialing exams.
- Are 16 years or older prior to participation in clinical experiences.
- Complete criminal background check prior to participation in clinical experiences.
- Maintain up-to-date immunizations prior to participation in clinical experiences.
- Complete a minimum of 10 patient-care pre-hospital calls after school and on weekends.
- Provide own transportation to all clinical experiences.

Health Professions, Academy of

Physical Rehabilitation

Prepares students to integrate skills for physical therapy, occupational therapy, kinesiology, and athletic training. Students focus on preventative activities, therapeutic practices, and rehabilitation. Students are prepared for experience in a clinical setting with a focus on the specific knowledge, skills, and abilities that relate to physical rehabilitation and/or occupational therapy.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete at least 6-8 hours of work-site experience per week OR daily attendance at the Applications and Research Lab.
- Attend weekly senior seminars at the Applications and Research Lab.
- Choose a real-world problem to research.
- Write and submit a research proposal, abstract, and reflection paper based on research.
- Maintain and submit a journal and portfolio of senior work.
- Present a culminating multimedia presentation for the final grade.

Industry Certifications

All Academy of Health Professions students will become certified in first aid, cardiopulmonary resuscitation (CPR), Health Insurance Portability and Accountability Act (HIPAA), and blood and airborne pathogens by the end of their senior year.

Students in the Emergency Medical Technician Academy earn Occupational Safety and Health Administration (OSHA) Infection Control certification.

Upon completion of CNA coursework and clinical experiences with a grade of 70% or better, students can receive a CNA certificate. Students seeking GNA certification will be required to complete a state examination for a fee.

College Credit

Students who successfully complete the Clinical Research in Allied Health program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College.

Upon graduation and successful completion of NREMT (National Registry EMT) certification requirements, students can begin college level coursework at HCC. The Emergency Medical Services Program at HCC is a two-year, Associate of Applied Science – Paramedic curriculum.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Home Health Care Provider EKG Technician/EEG Tech. Medical Assistant Medical Lab Technician Medical Office Manager Personal Trainer Pharmacy Technician Physical Therapy Assistant Radiographer Surgical Technologist Certified Nursing Assistant Geriatric Nursing Assistant Emergency Medical Technician Flight Medic Firefighter Paramedic	Dietician/Nutritionist Health Educator Occupational Therapist Physician Assistant Licensed Practical Nurse Registered Nurse Tactical Paramedic (Law) Disaster Preparedness and Management Social Worker MS Educator Occupational Safety and Health	Audiologist Chiropractor Dentist Genetic Counselor Health Administrator Nurse Practitioner Pharmacist Physical Therapist Physician Speech and Language Pathologist Nurse Practitioner

HVAC (Heating, Ventilating, Air Conditioning) Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

The HVAC Academy provides students the opportunity to earn industry recognized National Center for Construction Education Research (NCCER) credentials in a curriculum that employs foundation research credentials and building and construction skills. Students will gain experience in all aspects of the heating, ventilation, and air conditioning field including: safe work practices in the HVAC shop; using hand and power tools; troubleshooting refrigerant and electrical problems; step-by-step procedures for soldering and brazing piping; applying principles and demonstrating a knowledge of HVAC installations, and how to read and interpret diagrams.

This National Center for Construction Education Research (NCCER) certified program affords students the opportunity to earn national recognition.

Recommended Electives

- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a work-site or clinical experience (students must provide their own transportation) OR participate in on-campus course of advanced skills, which includes a capstone project.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Health II/Elective*	HVAC II CT-756-3
Lifetime Fitness/Health I	Elective	HVAC I CT-754-2	
Elective	Elective		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the HVAC Academy program sequence with a grade B or higher in academy coursework, may be eligible for credits at Anne Arundel, Baltimore, Howard, and Montgomery community colleges.

Industry Certifications

Students can pursue an HVAC apprenticeship in postsecondary programs or earn HVAC certification.

Sample Career Options	
• HVAC Technician • Industrial Maintenance Technician • Heating and Air Conditioning Mechanics and Installers • Building Management • Construction Management	• Energy Engineer • Geothermal Technician • HVAC Instructor • Mechanical Engineer

Junior Reserve Officers' Training Corps Academy

Locations: Army JROTC is offered at Atholton High School and Howard High School. Air Force JROTC is offered at Oakland Mills High School. All coursework is taught at JROTC schools for this 3 credit academy.

Enrollment Note:

A student who wishes to participate in the JROTC program, but does not attend one of the schools that offers the program, may apply to the JROTC program at Atholton High School, Howard High School, and/or Oakland Mills High School. Each school has a limited number of spaces available for students who apply.

Summary

The Junior Reserve Officers' Training Corps (JROTC) provides a citizenship, character, and leadership development program for high school students. It is a cooperative effort between Howard County Public School System, the U.S. Army and U.S. Air Force. JROTC instruction prepares 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.

General Requirements:

Students must:

- Apply prior to the deadline and participate in an interview process. Check with the school counselor at your current school to get information about deadlines.
- Be accepted to the program and must provide their own transportation.
- Remain enrolled in the JROTC program at all times. Students who do not remain enrolled must return to their district high school. Students retain full athletic eligibility.

Benefits of Program

JROTC prepares students for college and careers through leadership and essential life and career skills instruction, activities, and opportunities.

Students participate in service-learning projects throughout the school year to learn about the value of serving other.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I/DA or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
			Elective
Technology Education	Fine Arts	Health II/Elective*	JROTC Army IV CT-954-1 or Air Force IV CT 974-1
		Elective	
Lifetime Fitness/Health I	Elective	JROTC Army III CT-953-1 or Air Force III CT 973-1	JROTC Army Advanced CT-956-1 or Air Force Advanced CT 976-1
JROTC Army I CT-951-1 or Air Force I CT 971-1	JROTC Army II CT-952-1 or Air Force II CT 972-1		

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Industry Certification

Students are offered the opportunity to take the Armed Services Vocational Aptitude Battery (ASVAB) test and participate in the ASVAB Career Exploration Program.

College Credit

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.

Junior Reserve Officers' Training Corps Academy

Sample Career Options

While JROTC programs do not prepare students for a specific career field, the incorporation of the ASVAB Career Exploration Program provides a platform for students to conduct interest inventories and career exploration activities that highlight the educational and experiential requirements required for a broad spectrum of career fields, and/or STEM-related occupations include entry level programs of study in these areas:

Chemical or Engineering Corps
Military Police
Infantry
Field Artillery
Aviation
Military Intelligence Corps
Signaling Corps
Medical Service Corps
Nurse Corps
Pilot

Behavioral Sciences
Financial Management
Munitions and Missile Maintenance
Airfield Operations
Aircraft Maintenance
Band Officer
Civil Engineer
Public Affairs
Tactical Air Control

For more information visit <https://www.afrotc.com/> or <https://www.goarmy.com/rotc.html>

Marketing Academy

Location: All academy coursework is taught at the high school.

Summary

Marketing Academy students will have the opportunity to focus their studies on the fundamental principles of marketing. Students will develop marketing plans by analyzing customer needs and the market environment. Product development, pricing strategies, advertising and promotion planning, product distribution, and strategies for conducting market research will be explored in depth. Students will have the opportunity to investigate and analyze current marketing trends and campaigns including the recent introduction of e-marketing. Benefits for Academy students include a focused course of study, connections with the local professional marketing community, and opportunities to participate in activities created exclusively for academy members.

Recommended Electives

- Statistics - AP
- Advanced Accounting and Finance - Honors

Prerequisites

- Completion of Algebra I prior to enrollment in academy coursework.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a large-scale marketing project during the senior year.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health I	Elective	Health II/Elective*	Elective
Fine Arts	Elective	Elective	Elective
Technology Education	Principles of Business and Management G/T CT-415-CC	Principles of Accounting and Finance - Honors CT-420-1	Principles of Marketing - Honors CT-450-1

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Students who successfully complete the Marketing Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Customer Service Representative Sales Representative Telemarketer	E-Marketing Specialist Marketing Research Analyst Public Relations Specialist Retail Management Sales Manager Supply Chain Manager	Advertising and Promotions Manager Brand Manager Field Marketing Manager Product Manager Promotions Manager

Systems and Project Engineering Academy

Location: Junior and senior-level academy courses are taught at the ARL.

Summary

Students in this academy focus on all aspects of the engineering design process preparing them for the changing demands and professions of the 21st century. Following the engineering design process, they will work in teams to develop creative and innovative ideas, solving many hands-on, authentic engineering problems. Prototypes of the ideas are designed, fabricated, tested, and modified in quick iterative cycles. Students will become proficient with design thinking, computer modeling software, basic welding and machining, and interdisciplinary teamwork preparing them for continued study in a variety of engineering careers.

Recommended Electives

- Two years of World Language

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a work-site experience (students must provide their own transportation) OR by participating in the on-campus (ARL) course of advanced skills, which includes a capstone project.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Health II/Elective*	Systems Engineering Innovation – G/T CT-665-3
Lifetime Fitness/Health I	Elective	Systems Management	
Elective	Elective	Solutions – G/T CT-675-2	

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

Senior Level Coursework Requirements:

- Complete at least 6-8 hours of work-site experience per week OR daily attendance at the Applications and Research Lab.
- Attend weekly senior seminars at the Applications and Research Lab.
- Choose a real-world problem to research.
- Write and submit a research proposal, abstract, and reflection paper based on research.
- Maintain and submit a journal and portfolio of senior work.
- Present a culminating multimedia presentation for the final grade.

College Credit

Students who successfully complete the Systems and Project Engineering Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College.

Industry Certification

Students have the opportunity to earn Certified SolidWorks Associate (CWSA) certification.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Draftsperson/CAD Operator Electrician Equipment Operator Laboratory Technician Machinist/Tool and Die Maker	Aerospace Engineer Design Engineer Electrical Engineer Mechanical Engineer	Materials Scientist Physicist Quality Engineer Systems Designer/Engineer Program Managers/Test Engineer

Teacher Academy of Maryland

Location: All academy coursework is taught at the high school.

Summary

The Teacher Academy of Maryland is designed for students who intend to pursue a career as a elementary, middle, or high school teacher. Over the next decade America is projected to need at least 2.4 million new teachers. As a system, Howard County Public Schools welcomes our own graduates back to begin their new careers as educators in our schools. Academy students have the opportunity to conduct formal observations, develop and deliver lesson plans in a K-12 setting, and participate in special events and activities with other future educators. Academy coursework focuses on development and learning theory, positive and effective classroom management and discipline, curriculum delivery models, and the creation of developmentally appropriate curriculum and learning environments. Students in the Teacher Academy of Maryland will have the opportunity to participate in pre-professional development activities including visits to classrooms at the elementary through high school levels, internship experiences providing interaction with students of multiple age levels and in multiple subjects, and conferences and workshops sponsored by and designed for educators.

Recommended Electives

Teacher Academy of Maryland students are advised to take at least two years of a World Language; Spanish being recommended. Students who are preparing for a career teaching middle/high school should pursue additional courses in the subject area they are planning to teach (e.g., Mathematics, Science, Social Sciences, Humanities/Arts).

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete a portfolio documenting academic and work-based skills and achievements.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II or above	Mathematics
Science	Science	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Health II/Elective*	Elective
Lifetime Fitness/Health I	Elective	Foundations of Curriculum and Instruction CT-924-1	Elective
Fine Arts	Teaching as a Profession - G/T CT-925-CC	Human Growth and Development – G/T CT-922-CC	Field Experience in Education (Teacher Academy) – G/T CT-927-1, CT-927-2

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

College Credit

Through a special partnership with Howard Community College's Teacher Education Program, students enrolled in the course, Teaching as a Profession – G/T CT-925-1, are eligible to be dually enrolled in the three-credit college course, Introduction to Education (EDUC 110).

Students who complete courses, Teaching as a Profession - G/T (CT-925-CC) and Human Growth and Development - Honors (CT-922-C), and earn a grade of B or higher may be eligible for credits at Howard Community College.

Students who complete the Teacher Academy of Maryland (TAM) program and earn grades of B or higher in all four required Academy courses may earn college credits from Bowie State University, Coppin State University, Frostburg State University, Hood College, Morgan State University, Salisbury University, St. Mary's College of Maryland, Stevenson University, or Towson University.

Teacher Academy of Maryland

Industry Certification

Upon completion of the four required Academy courses including the internship, students have the opportunity to earn the ParaPro, a nationally recognized examination required by the state of Maryland for employment as a highly qualified instructional assistant.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Childcare Worker Daycare Center Owner/Director Family Day Care Provider Instructional Assistant/Aide Preschool Director Recreation Program Director	Early Childhood Teacher Elementary Teacher High School Teacher Parent Educator Preschool Teacher	Child Psychologist Guidance Counselor Pediatric/Obstetrics Nurse School Administrator Social Worker Speech Therapist

Course Description Diagram

Course Number - LA-402-1

Note: All courses listed with a -1, -2, or -3 at the end of the course number are full-year courses and indicate the number of credits.

All courses listed with a -8 at the end of the course number are half-year or semester courses and indicate a 1/2 credit.

Course Identifiers - ♥ ★ ● ■ +

♥ Weighted Class ● High School Assessment Course ★ NCAA Approved Course ■ Digital Option + Dual Enrollment

Weighted Class - ♥

State Assessed Course - ●

NCAA Approved Course - ★

Digital Education Option - ■

LA-402-1 ♥●★■

English 10 – Honors

1 credit

Number of Credits - 1

Course Level - Honors

Course Title - English 10

MA-461-1 ★

Algebra II

Grades 10, 11, 12

1 credit

Prerequisite: Algebra I or Geometry. This course extends the study of topics introduced in Algebra I.

The emphases on linear, quadratic, exponential, logarithmic, polynomial, and rational functions are motivated by data investigations. Graphing calculators are an integral part of this course.

Grade Eligible for Course - 10, 11, 12

Prerequisites* - Course(s) a student is required to successfully complete before registering for a course.

Course Description - Describes the content of a course.

* Corequisites may also apply. Corequisites are courses that may be taken at the same time as enrollment in the selected course.

Advanced Research

The courses listed below are credit courses. They can be used to meet elective credit requirements for graduation. They are listed in this section because they are not directly related to a single content area. In some instances, several content areas satisfy course objectives.

GT-400-1♥ - I

GT-410-1♥ - II

GT-420-1♥ - III

Independent Research I, II, III - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisites: Application and teacher recommendations

Independent Research is a college-level course in which students design an original research study or creative production in self-selected areas of interest. Students learn advanced-level research methodologies and college-level writing and oral presentation skills. Under the guidance of the G/T resource teacher, each student identifies a problem and formulates a research question. Student researchers address identified problems, answer research questions, and communicate the results of their achievements to professionals in their selected areas of study.

GT-430-1♥ - (1 credit - grade 11 or 12)

GT-440-2♥ - (2 credits - grade 11 or 12)

GT-450-1♥ - (1 credit - grade 12)

GT-460-2♥ - (2 credits - grade 12)

Intern/Mentor Program I, II - G/T

Grades 11, 12

1-2 credits

Prerequisites: Grade of "B" or better in related area of study; above average recommendation(s) from teacher or other professional in the field of interest; application; interview with G/T resource teacher; access to reliable transportation. Student participation is subject to mentor availability.

Students in this college-level course design an original research study or creative production intended to contribute new knowledge to the field of study. Students study off-campus (five to ten hours per week) with a professional mentor in a self-selected area of interest. The G/T resource teacher facilitates the experience and provides instruction in research methodologies, advanced writing skills, and oral presentation skills. At the mentor's worksite, students apply their knowledge and skills. Applications are available from the G/T resource teacher.

Career and Technical Education (CTE)

Career and Technical Education (CTE) offers an opportunity to explore career pathways while still in high school. CTE programs satisfy the following pathways that students may select for graduation: Career Academy (CTE Completer Program), or Advanced Technology Program. Students may also take CTE courses as elective courses within their four-year high school plan. The CTE program provides coursework that focuses on career exploration and development of the skills needed for success in postsecondary and workplace experiences.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Aerospace Engineering: Project Lead the Way Academy

CT-605-2

Aerospace I – G/T

Grade 11

2 credits

(Computer Science, Engineering, or Technology Education Credit)

Corequisite: Geometry is the minimum math requirement.

This is a hands-on course that helps students understand the field of engineering and the engineering design process. Students use computer-modeling software to study and apply the engineering design process. Students design, construct, test, and evaluate various projects that apply knowledge and skills. This course includes course material from PLTW Introduction to Engineering Design and PLTW Principles of Engineering.

CT-615-3

Aerospace II – G/T

Grade 12

3 credits

Prerequisite: Aerospace I G/T

This is a hands-on course in which students use computer simulations to learn about the logic of electronics while they design, test, and construct circuits and devices. In addition, this course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. Finally, students work in teams to research, design, and construct solutions to open-ended engineering problems. This course includes the Project Lead the Way (PLTW) course curriculum from PLTW Digital Electronics – G/T, PLTW Aerospace Engineering – G/T and PLTW Engineering Design and Development – G/T.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Agricultural Science Academy

CT-750-2

Agricultural Science I - G/T

Grades 11, 12

2 credits

This course offers exciting “hands-on” activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. Additionally students will learn the principles of plant science through topics such as the mechanisms and interactions of plant systems, soil and soilless systems to propagate and produce plant materials, classifying plants using scientific naming, anatomy and physiology of plants, growing environments, and pests and diseases.

CT-752-3

Agricultural Science II - G/T

Grade 12

3 credits

Prerequisite: Agricultural Science I - G/T

Students will complete hands-on activities, projects, and problems designed to build content knowledge and technical skills in the field of biotechnology related to plant and animal agriculture. Students will develop and conduct a research project following the National FFA Agriscience Fair guidelines. A capstone culminates students’ experiences in agriculture and includes research through data collection and analysis. Students will investigate a problem of their choice and conclude the project by reporting their results in the forms of a research paper and a research poster. Students may either participate in a laboratory research-based internship or complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation. Students who chose the advanced course curriculum will apply skills and knowledge from Agriculture Science I G/T to advanced topics in agriculture.

Animation and Interactive Media Academy

CT-796-2

Animation and Interactive Media I

Grades 11, 12

2 credits

Prerequisite: Art I

Students work with industry standard software to simulate 3D environments and apply 3D effects to create realistic still images and animations. Each lesson is a building block for future projects of increasing complexity. As students progress through the course, they will create products that can be integrated into other media types using familiar compositing and editing techniques. Projects will culminate in the production of products from the following areas: broadcast, animated films, visual effects, video games graphics, visualizations, web-based media, mechanical modeling, forensic modeling, and architectural studies.

CT-796-3

Animation and Interactive Media II

Grade 12

3 credits

Prerequisite: Animation and Interactive Media I

Students learn advanced level animation skills and techniques based on successfully completed Animation I projects. Realism and its application to stylized works are stressed. Cloth, collisions, and other physics-based scenarios are explored, as well as character and mechanical rigging, camera techniques, lighting systems, and hair. Cinematic topics discussed may include advanced special effects, video compositing, green screen technology, titles, transitions, audio, and sound effects. Students will continue to build their portfolios. Advanced Animation is conducted entirely on-site at the ARL through projects that are a collection of instructor, student, and industry activities and are designed to create real-world experiences.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Apprenticeship Maryland Academy

CT-590-1

Apprenticeship Industry Instruction

Grade 12

1 credit

Prerequisite: Job interview and offer

Concurrent: enrollment in Apprenticeship Work-based Learning (CT-595-3)

Industry related training which takes place outside of HCPSS. This training includes technical and employability skills and increased knowledge of the world of work. Instruction is individualized and may be received through the employer, a post-secondary institution, an online platform, or technical school.

CT-595-3

Apprenticeship Work-based Learning

Grade 12

3 credits

Prerequisite: Job interview and offer

Concurrent: enrollment in Apprenticeship Industry Instruction (CT-590-1)

The Apprenticeship Maryland Academy is coordinated through a partnership between the Maryland State Department of Education (MSDE) and the Maryland Department of Labor, Licensing and Regulation (DLLR). The program is for seniors and is designed to lead to sustainable employment and further education based on career pathways in Science, Technology, Engineering, and Mathematics (STEM) occupations. Eligible employers (approved by the Maryland Apprenticeship Training Council (MATC) through DLLR) interview and hire high school seniors to work with eligible employers in science, technology, engineering, and mathematics (STEM) industries and traditional occupations, creating an "earn and learn" opportunity.

Architectural Design Academy

CT-730-2

Architectural Design

Grades 11, 12

2 credits

This course will introduce the basic principles and methods of design as applied to architecture. Basic design theories and strategies related to the development of spatial concepts in architectural design including composition, color, form, and relationship of elements will be applied in the development of 2D and 3D design projects. This course further emphasizes the architectural design process while relating these principles to general construction practices.

CT-734-3

Advanced Architectural Design - Honors

Grade 12

3 credits

Prerequisite: Architectural Design

This course is now aligned with the new MSDE Program of Study, Construction Design Management which prepares students for college and career opportunities. Students also work on earning Autodesk Revit certification which is the standard for Architects in the field. The curriculum dually aligns with the University of Maryland and Morgan State University curricular goals and objectives wherein students can earn articulated credit or advanced standing when accepted to architectural programs. Students also complete an internship and capstone project that is reviewed and juried by architects and architectural industry professionals.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Automotive Technology Academy

CT-736-2

Automotive Technology I

Grades 11, 12

2 credits

Students will receive training covering every system of the automobile, related tools, and industry equipment. Emphasis is on diagnostics, troubleshooting skills, safe use of equipment, suspension and steering, and brake systems. Course content provides students with the knowledge and skills required for entry-level employment as a repair technician in any modern shop. Curriculum is developed from the National Automotive Technology Education Foundation (NATEF) task lists. Students will take the Automotive Service Excellence (ASE) certification exams.

CT-738-3

Automotive Technology II

Grade 12

3 credits

Prerequisite: Automotive Technology I

Students will continue to study the components of the automobile technology curriculum. Topics include diagnostics, troubleshooting skills, safe use of equipment, electrical and electronic systems, and engine performance. Course content provides students with the knowledge and skills required for entry-level employment as a repair technician in any modern shop. Curriculum is developed from the National Automotive Technology Education Foundation (NATEF) task lists. Students will take the Automotive Service Excellence (ASE) certification exams.

Biotechnology Academy

CT-645-2♥

Biotechnology I - G/T

Grades 11, 12

2 credits

Prerequisite: Biology or Biology G/T

Co-requisite: Chemistry G/T

Students will develop a strong foundation in molecular biology including genetics, microbiology, and cell biology. This course will introduce students to procedures and instruments used in biotechnology laboratories. Students will connect biological processes to medical diagnostics, forensic science, agricultural biology, genetics and genetic counseling, and bioethics. Safety protocols and maintenance of written records will be emphasized. Students will integrate molecular biology concepts with lab procedures, mathematics and technical writing.

CT-655-3♥

Biotechnology II - G/T

Grade 12

3 credits

Prerequisite: Biotechnology I G/T

This course completes the Biotechnology Academy coursework. Students may either participate in a laboratory research-based internship or remain on campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site. Students who remain on campus apply skills and knowledge from Biotechnology I to advanced topics in biotechnology. Topics include: toxicology, agriculture and industry, cancer research, pharmacogenetics, tissue culturing, and bioinformatics. Students complete a semester-long research project and share findings in a culminating end-of-year presentations.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Construction Academy

CT-740-2

Construction Technology I

Grades 11, 12

2 credits

Students apply architectural engineering, construction technology, and management principles to practical projects within residential and commercial construction. In addition to carpentry, students in this course also explore a variety of construction trade areas, such as electrical and plumbing. Current software solutions, machines, material usage, and design techniques are employed. Students will work in teams to construct models and full-scale projects appropriate to the solution of design, management, and construction problems.

CT-742-3

Construction Technology II

Grade 12

3 credits

This course completes the Construction Academy coursework. Students may either participate in a skills-based internship or remain on campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Cybersecurity Networking Academy

CT-790-2

Cybersecurity Computer Essentials

Grades 11, 12

2 credits

Prerequisite: Algebra I

The Cybersecurity Computer Essentials course provides an introduction to the computer hardware and software and fundamental networking skills needed to help meet the growing demand for entry-level IT professionals. The curriculum covers the fundamentals of PC technology, networking, and systems security, and also provides an introduction to advanced concepts. Students who complete this course will be able to describe the internal components of a PC, assemble and fix laptops and desktops. Hands-on labs and e-learning tools help students develop critical thinking and complex problem-solving skills in a network environment. This course prepares students for CompTIA A+ certifications as well as offers a learning pathway to the Networking Essentials (Cyber Ops pathway)

CT-792-3♥

Cybersecurity Networking Essentials - Honors

Grade 12

3 credits

Prerequisite: Cybersecurity Computer Essentials

This course provides in-depth coverage of small-to-medium or ISP network knowledge and current cybersecurity risks and threats to an organization's data, combined with a structured way of addressing the safeguarding of these critical electronic assets. This course offers a hands-on approach to learning with interactive tools and labs to help students develop greater understanding of the general theory needed to build networks. Students acquire the knowledge necessary for protecting network services, devices, traffic, and data. Students who meet specific criteria may participate in a worksite internship related to their career interests or will to remain on-campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site. (Cyber Ops pathway)

CT-685-2♥

Cybersecurity and Computer Networking I – G/T

Grades 11, 12

2 credits

Prerequisite: Algebra I

Cybersecurity and Computer Networking I provides a framework for understanding the why, where, and how of the components of a personal computer and its operating system. Students learn the fundamentals of cybersecurity and computer networking through the use of the CISCO CCNA curriculum, which cover the range of small home networks through medium sized business networks. This course prepares students for the globally recognized CISCO CCENT certification. In addition, students develop skills related to cybersecurity and are prepared to continue to CCNA to earn full CCNA certification. (Computer Networking pathway)

CT-695-3♥

Cybersecurity and Computer Networking II – G/T

Grade 12

3 credits

Prerequisite: Cybersecurity and Networking I G/T

Cybersecurity and Computer Networking II provides students with the knowledge of cybersecurity-related issues necessary to implement system security in a wide variety of networks. Students learn in-depth information about the risks and vulnerabilities of networks and focus on network defense techniques. In addition, students become skilled at protecting and securing sensitive information on networks and systems. This course offers hands-on, interactive problem-solving activities that allow students to analyze the latest cyber-related threats and mitigation techniques. Students have the option to continue study of CCNA to earn full CCNA certification. Students will have the option to earn the CompTIA Security+ certification. Security+ empowers students to identify emerging cybersecurity threats and methods to mitigate them, as well as to learn best practices to secure data while it is stored, processed, and in transit. (Computer Networking pathway)

CTE Career Academies at the Applications and Research Laboratory (ARL)

Early College Program in Cybersecurity

CT-560-1

Career Research and Development I

Grade 10

1 credit

Students will demonstrate an understanding of how accurate, current, and unbiased career information is necessary for successful career planning and management using Maryland's career clusters and pathways. In addition, students will be introduced to basic concepts of financial literacy to help them manage their personal finances. Course content will include topics such as identifying interests and aptitudes; investigating careers; setting goals and planning to achieve them; finding, applying for, and maintaining employment; communicating effectively; understanding choices and challenges in the world of work; applying reading and mathematical skills to the world of work, and using appropriate technology. Students will complete a career portfolio with the opportunity to earn a Passport to the Future.

CT-570-1

Career Research and Development II

Grade 10

1 credit

Prerequisite: Concurrent enrollment in Career Research and Development I - 6880A

Students will continue to explore career options and develop workplace readiness skills. Course content will include topics such as meeting the expectations of an employer; teamwork; assessing progress toward career goals; using interpersonal skills on the job; following health and safety rules at work; communicating effectively in the workplace; applying reading and mathematical skills on the job; using computers/technology at the workplace; becoming an entrepreneur/leader in the world of work, and financial literacy and money management.

CT-580-1

CT-580-2

Site-based Work Experience at ARL

Grade 12

1-2 credits

Prerequisite: Career Research and Development I and Career Research and Development II

The CRD teacher/coordinator will coach and assist students as they secure placement based on the results from career research, interest inventories, and aptitude assessments taken in CRD I. The workplace component is a mentored experience with a written, personalized work-based training plan. Students will sign a student placement contract. The student's work hours must overlap the afternoon work hours of the CRD teacher. Special education students who require more direct support to be successful at the worksite, may receive services through the Work-Study teacher at their school as determined by the IEP team. Students must provide their own transportation.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Finance (Academy of)

CT-625-2♥

Academy of Finance I - G/T

Grade 11

2 credits

Academy of Finance I teaches students a diverse set of skills and knowledge in the field of business and finance. Through exploration and application of financial planning, investment strategies, and accounting and economic principles, students will create financial plans and investment portfolios. Students will also apply accounting principles to a small business cycle using accounting software. Units of study include: Principles of Finance, Principles of Accounting, Business Economics, Financial Planning, and Applied Finance.

CT-635-3♥

Academy of Finance II - G/T

Grade 12

3 credits

Prerequisite: Academy of Finance I G/T

Students will have the opportunity to combine theory and innovation into real-world application through a semester based internship in the business environment, a three credit college level business course, and in the creation of business strategic plans. Units of study include: Managerial Accounting, Entrepreneurship, and the Global Business Economy. Students who meet specific criteria may participate in a worksite internship related to their career interests or will remain on-campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site.

Graphic Design Academy

CT-715-2♥

Graphic Design I - G/T

Grade 11, 12

2 credits

Prerequisite: Art I

This course introduces students to advanced digital publishing techniques used by professional graphic designers. Topics include: publication design, digital illustration, digital image editing, videography, typography, printing processes, web design, 2D animation, and advertising. Creative design solutions will be explored through individual and team projects. Students will also be able to demonstrate proficiency in the use of various processes, graphic design, and related software. An emphasis is placed on the development of a professional portfolio.

CT-725-3♥

Advanced Graphic Design - G/T

Grade 12

3 credits

Prerequisite: Graphic Design I G/T

Students learn advanced level graphic skills and techniques based on successfully completed projects in Graphic Design I. All students are required to choose real-world problems to research and must complete a portfolio of their work. Graphic Design students have the opportunity to acquire Print ED certification, which is a national certification recognized by colleges and industry. Students who meet specific criteria may participate in a worksite internship related to their career interests or will remain on campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Health Professions (Academy of)

CT-760-2

Foundations of Health Care - Honors

Grades 11-12

2 credits

Prerequisite: Biology

This course provides students with an overview of healthcare professions and organizations. Emphasis is placed on learning about health careers, employment opportunities, and required professional characteristics to work within health care. In addition, students learn about the structure and function of the human body, pathological conditions, and treatments. Students gain knowledge of medical terminology, infection control and prevention strategies, ethical and legal issues, and have the opportunity to become nationally certified in cardiopulmonary resuscitation and first aid. Through using hands-on skills and technology to research body systems and diseases, students will gain an advanced understanding of health care.

CT-764-3

Certified Nursing Assistant: Theory and Clinical

Grade 12

3 credits

Prerequisites: Foundations of Healthcare - Honors.

This course prepares students to function as nursing assistants in various healthcare settings. This course is approved by the Maryland Board of Nursing and provides training in lifespan development, vital signs, and basic patient care. Upon successful completion, students are eligible to take the State Geriatric Examination to become a CNA with a specialty in geriatrics (GNA). The knowledge and competencies learned in this course are valuable in pursuing any career in healthcare.

CT-762-3

Clinical Research in Allied Health – Honors

Grade 12

3 credits

Prerequisites: Foundations of Health Care Honors.

This course completes the Academy of Health Professions coursework. Students may either participate in a research-based internship or remain on-campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site. Students will attend weekly seminars at the ARL and demonstrate their ability to investigate

clinical research data and construct investigative and informative research papers. Students may also choose to further their studies in the fields of Physical Medicine and Rehabilitation, as well as Pharmacy Technician training.

CT-766-3

Emergency Medical Technician: Basic and Clinical

Grade 12

3 credits

Prerequisite: Foundations of Health Care - Honors.

The Emergency Medical Technician National Registry EMT (NREMT) class will prepare students with the emergency skills to assess a patient's condition and manage medical and trauma emergencies. The class provides classroom and clinical experiences. A minimum of 10 patient care pre-hospital calls, completed after school and on weekends. If students do not complete clinical, they may still pass the class but not receive the completer. This course serves as a prerequisite for coursework in the Emergency Medical Services Program at Howard Community College.

CT-768-3

Physical Rehabilitation - Honors

Grade 12

3 credits

Prerequisite: Foundations of Healthcare - Honors

The Physical Rehabilitation course is designed to expose students to varied careers related to the physical and occupational therapy field. This course integrates concepts of physical therapy, occupational therapy, kinesiology, and athletic training. Students will focus on musculoskeletal, neuromuscular, cardiopulmonary, and Integumentary related injuries, diseases and disorders. In addition, students will also focus on preventative activities, therapeutic practices, and rehabilitation. Students have the opportunity to participate in an internship in the clinical setting with a focus on the specific knowledge, skills, and abilities that relate to physical rehabilitation and/or occupational therapy.

CTE Career Academies at the Applications and Research Laboratory (ARL)

Heating, Ventilation, and Air Conditioning Academy

CT-754-2

HVAC I

Grades 11, 12

2 credits

Heating, Ventilating, and Air Conditioning (HVAC) I will include the National Center for Construction Education and Research (NCCER) Core and HVAC I curriculum. The NCCER Core includes demonstration of mastery in the following topics: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Construction Drawings, and Introduction to Basic Rigging. The HVAC I Curriculum includes demonstration of mastery in a variety of HVAC skills including electricity, heating, cooling, copper tubing practices, and soldering and brazing. Students will experience various HVAC concepts through exciting “hands-on” activities, projects, and problems.

CT-756-3

HVAC II

Grade 12

3 credits

Prerequisites: HVAC I

The HVAC teacher will coach and assist students as they secure work site placement/apprenticeship. The workplace component is a mentored experience with a written, personalized work-based training plan. Students will sign a student placement contract. The student’s work hours must overlap the afternoon work hours of the HVAC teacher. Special education students who require more direct support to be successful at the worksite, may receive services through the Work-Study teacher at their school as determined by the IEP team. Students must provide their own transportation to the work site.

Systems and Project Engineering Academy

CT-665-3♥

Systems Engineering Innovation - G/T

Grade 12

3 credits

Prerequisite: Systems Management Solutions G/T

This course includes components that address community and environmental responsibility, project-based engineering technology solutions, and project management principles. Students who meet specific criteria may participate in a worksite internship related to their career interests or remain on campus to complete the advanced course curriculum. Students who participate in an internship are required to complete at least 6-8 hours per week at their internship site and must provide their own transportation to the internship site.

CT-675-2♥

Systems Management Solutions - G/T

Grades 11, 12

2 credits

Students completing this course will develop their ability to analyze technical systems, apply basic principles of force, rate, work, and mechanics to multiple energy systems, including mechanical, fluid, thermal, and electrical. Students explore activities that provide them with the initial preparation necessary for successful careers in multiple engineering industries, including program/project management and various technical service disciplines. This course includes project-based engineering technology solutions and project management principles including energy conservation, green technology, and solutions for the future.

CTE Career Academies at High Schools

Accounting Academy, Business Management Academy, and Marketing Academy

CT-415-CC

Principles of Business and Management G/T **Grades 10, 11, 12** **1 credit**

This course is designed to introduce students to topics related to current business practices. Students examine business trends including consumer economics, marketing, finance, international business, business law, and entrepreneurship. This course is the first course in the three-course sequence for completing the Accounting, Business Management or Marketing Academy. The student may earn college credit at Howard Community College. This course is ideal for students who are ready to take a fast-paced college level business course in high school. All students will be expected to complete the college level coursework regardless of dual enrollment status.

CT-420-1♥

Principles of Accounting and Finance – Honors **Grades 10, 11, 12** **1 credit**

Principles of Accounting and Finance – Honors provides students with skills necessary to manage and maintain a company's financial resources and use those to make daily operating decisions. Learning experiences are designed to enable students to determine the value of assets, liabilities, and owner's equity; to prepare, interpret, and analyze financial statements, and to examine the role of ethics and social responsibility in decision-making.

CT-430-1♥

Advanced Accounting and Finance – Honors **Grades 11, 12** **1 credit**

Prerequisites: Principles of Business and Management G/T and Principles of Accounting and Finance - Honors
This course provides students with knowledge and skills needed for college and career readiness. Topics include: recording short- and long-term assets and investments, recording short- and long-term liabilities, managing inventory, establishing corporations, declaring and paying dividends, analyzing and interpreting financial statements, and evaluating ethical and legal issues. Accounting software and Microsoft Excel are integrated throughout the course. (This course completes the Accounting Academy.)

CT-440-1

Advanced Business Management – Honors **Grades 11, 12** **1 credit**

Prerequisites: Principles of Business and Management G/T and Principles of Accounting and Finance - Honors
This course focuses on the role of business in society; the changing nature of contemporary business practices; major management concepts, theories, and theorists; the processes of management (functional, operational, human relations); business law and ethics, and business communications. Career pathways will be examined and the use of business management knowledge in a variety of career clusters is also explored. Awareness of ethical issues and application of ethical decision-making models will be reinforced throughout the course. Students will understand the business world and be more prepared to meet their career goals and objectives. (This course completes the Business Management Academy.)

CT-450-1♥

Principles of Marketing - Honors **Grades 11, 12** **1 credit**

Prerequisites: Principles of Business and Management G/T and Principles of Accounting and Finance - Honors
This course introduces students to marketing principles, including market analysis, forecasting, segmenting, product strategy, pricing, distribution, promotion strategy, and international marketing. Experiences will include the investigations and analysis of the marketing strategies of various companies and the development of individual marketing plans. (This course completes the Marketing Academy.)

CTE Career Academies at High Schools

Computer Programming Academy

CT-465-1♥

Principles of Java Programming - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra I

This course is the starting point for students who are interested in the Computer Programming Academy. The emphasis is on solving real-world programs by means of computer programming using the Java programming language. Topics to be covered will include object-oriented design techniques, classes, objects, data types, control statements, looping structures, and arrays. An emphasis will be placed on computer science skills, problem solving, algorithm design, and documentation.

CT-475-1♥★

Computer Science A - AP [AP Computer Science]

Grades 10, 11, 12

1 credit

Prerequisite: Principles of Java Programming G/T and Computer Science Principles - AP or Instructor Approval

This course is a fast-paced advanced level course that extends the study of the fundamental principles and technology of object-oriented programming using the Java language. Topics include classes, objects, data types, variables, Boolean expressions, methods, looping, input, and output. Advanced topics will include searching, sorting, GUI components, and event handling. It is recommended that students in this course take the AP Exam when it is offered in May. This course may also be used as one of the four mathematics courses that satisfies graduation requirements, as well as the mathematics every year in high school requirement. However, in accordance with the University System of MD requirements, this course should not serve as the final high school mathematics course. Students taking this course in grade 12 should also enroll in another mathematics course.

CT-485-1♥

Advanced Data Structures - G/T

Grades 11, 12

1 credit

Prerequisites: Computer Science A-AP and Principles of Java Programming - G/T

This fast-paced advanced level course involves the in-depth exploration of data structures using the Java language. Topics include dynamic allocation, stacks, queues, linked lists, trees, templates, information hiding, inheritance, encapsulation, and polymorphism.

CT-495-1♥

Advanced Object-Oriented Design - G/T

Grades 11, 12

1 credit

Prerequisite: Computer Science A - AP

This course explores advanced components of object-oriented programming. Topics include Graphic User Interfaces (GUIs), effective web-page design, and advanced aspects of software development. The Java programming language, the use of Java applets, JavaScript, and HTML will be emphasized.

CTE Career Academies at High Schools

Career Research and Development Academy

CT-510-1

Career Research and Development I

Grades 10, 11, 12 **1 credit**

Students will demonstrate an understanding of how accurate, current, and unbiased career information is necessary for successful career planning and management using Maryland's career clusters and pathways. In addition, students will be introduced to basic concepts of financial literacy to help them manage their personal finances. Course content will include topics such as: identifying interests and aptitudes; investigating careers; setting goals and planning to achieve them; finding, applying for, and maintaining employment; communicating effectively; understanding choices and challenges in the world of work; applying reading and mathematical skills to the world of work, and using appropriate technology. Students will complete a career portfolio with the opportunity to earn a Passport to the Future.

CT-520-1

Career Research and Development II

Grades 11, 12 **1 credit**

Prerequisite: Career Research and Development I; Concurrent enrollment in Site-Based Work Experience

Students will continue to explore career options and develop workplace readiness skills. Course content will include topics such as: meeting the expectations of an employer; teamwork; assessing progress towards career goals; using interpersonal skills on the job; following health and safety rules at work; communicating effectively in the workplace; applying reading and mathematical skills on the job; using computers/technology at the workplace; becoming an entrepreneur/leader in the world of work, and financial literacy and money management.

CT-530-1

CT-530-2

Site-based Work Experience

Grade 12 **1-2 credits**

Prerequisite: Career Research and Development I; Concurrent enrollment in Career Research and Development II

The CRD teacher/coordinator will coach and assist students as they secure placement based on the results from career research, interest inventories, and aptitude assessments taken in CRD I. The workplace component is a mentored experience of a minimum of 135 hours with a written, personalized work-based training plan. Students will sign a student placement contract. The student's work hours must overlap the afternoon work hours of the CRD teacher. Special education students who require more direct support to be successful at the worksite, may receive services through the Work-Study teacher at their school as determined by the IEP team. Students must provide their own transportation to the work site.

CTE Career Academies at High Schools

Culinary Science Academy

CT-910-1

Food and Nutrition Technology

Grades 9, 10, 11

1 credit

This course is designed to provide a foundation in the study of culinary sciences, food, and nutrition. It offers students the opportunity to prepare healthy foods as an individual, or as a first step in preparation for a career related to food, nutrition, or hospitality services. Practical activities in the laboratory support instruction in consumerism, management, and nutrition. Students will learn and apply safe food handler practices in the lab.

CT-912-1

Culinary Sciences

Grades 11, 12

1 credit

Prerequisite: Food and Nutrition Technology

This Academy course is for the student who is pursuing a professional career in either the restaurant or hospitality industry. Through a hands-on, project-oriented approach, student teams will develop advanced food preparation, safety, and sanitation skills. Students will learn to use professional equipment and techniques. Culinary Sciences students will finish the first level of the ProStart program, the National Restaurant Association curriculum, and be eligible to take year one of the national examination.

CT-914-CC

Advanced Culinary Science and Restaurant Operations

Grades 11, 12

1 credit

Prerequisite: Culinary Sciences

The final course in the Culinary Academy is designed for the student who is pursuing college study and/or immediate entry into the professional restaurant and hospitality industries. Providing advanced training, the course focuses on the practices and skills required of professionals in food production, food services, and hospitality. Students who complete the course will finish the second level of the ProStart program and will be eligible to take the final examination for ProStart certification.

CT-917-1

CT-917-2

Field Experience in Culinary Science (Culinary Science Academy)

Grade 12

1-2 credits

Prerequisite: Successful completion or concurrent enrollment in 657M-Advanced Culinary Science and Restaurant Operations.

This course provides students an opportunity to apply and extend their knowledge and skills in a commercial food service or hospitality environment. Students who earn a passing grade in this course will have completed at least 135 hours of employment or mentored work toward the 400 hours required to earn the nationally-recognized ProStart Certificate of Achievement.

CTE Career Academies at High Schools

Engineering: Project Lead the Way Academy

CT-805-1♥

PLTW Introduction to Engineering Design - G/T

Grades 9, 10, 11, 12 **1 credit**

(Computer Science, Engineering, or Technology Education Credit.

Corequisite: Algebra I

Students use computer modeling software, such as AutoDesk Inventor, to study and apply the engineering design process. Models of product solutions are created, analyzed, and communicated using solid modeling computer design software.

CT-815-1♥

PLTW Principles of Engineering (POE) - G/T

Grades 10, 11, 12 **1 credit**

Prerequisites: PLTW Introduction to Engineering Design - G/T

Principles of Engineering is a hands-on course that helps the student understand the field of engineering and engineering technology. Students design, construct, test, and evaluate various projects that apply knowledge and skills. Students explore various technology systems and manufacturing processes to learn how engineers and technicians apply math, science, and technology in an engineering problem-solving process.

CT-835-1♥

PLTW Computer Integrated Manufacturing (CIM) - G/T

Grades 10, 11, 12 **1 credit**

Prerequisites: PLTW Introduction to Engineering Design - G/T.

This course applies principles of robotics and automation and builds on computer solid modeling skills developed in Introduction to Engineering Design. Students use computer-controlled equipment to produce models of three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

CT-825-1♥

PLTW Digital Electronics (DE) - G/T

Grades 10,11, 12 **1 credit**

Prerequisite: PLTW Introduction to Engineering Design - G/T

Students use computer simulations to learn about the logic of electronics while they design, test, and construct circuits and devices. Students apply logic that encompasses the application of electronic circuits and devices.

CT-845-1♥

PLTW Engineering Design and Development (EDD) - G/T

Grade 12 **1 credit**

Prerequisites: PLTW Computer Integrated Manufacturing (CIM) - G/T and PLTW Digital Electronics (DE) - G/T

Teams of students, guided by community mentors and professional engineers, work together to research, design, and construct solutions to open-ended engineering problems. Students apply principles developed in the four preceding courses. 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. Some of these activities may take place outside the school day.

CTE Career Academies at High Schools

Junior Reserves Officer Corps (JROTC) Academy

CT-951-1 JROTC Army I - Grades 9, 10, 11, 12

CT-952-1 JROTC Army II - Grades 10, 11, 12

(Must have successfully completed JROTC Army I)

CT-953-1 JROTC Army III - Grades 11, 12 (Must have successfully completed JROTC Army I and II)

CT-954-1 JROTC Army IV - Grade 12 (Must have successfully completed JROTC Army I, II, and III)

CT-956-1 JROTC Army Advanced - Grade 12

Army Junior Reserve Officer Training Corps

Army JROTC's mission is "To Motivate Young People to Be Better Citizens." It provides means for cadets to:

- Develop citizenship, character, and leadership
- Communicate effectively
- Serve their school and community
- Improve physical fitness
- Live drug-free
- Strengthen positive self-motivation and esteem
- Learn the historical perspective of military service
- Work as team members and learn to treat others with respect
- Graduate and pursue meaningful careers

Opportunities are provided to go on weekend trips and summer camps conducted at local training facilities. Cadets wear Army provided uniforms one day a week and are provided with all learning materials. As students progress through the Army JROTC program, they gain more specific knowledge in the area of intermediate and applied leadership development. Additionally, students will learn extensive first aid, improve physical fitness levels, understand financial management, and will gain an appreciation for the contributions of the military to the history of our nation. No military obligation is incurred. **Each JROTC course fulfills the service learning requirement. A Service Learning Validation Form needs to be completed and submitted to school counselor after course completion.**

CT-971-1 JROTC Air Force I - Grades 9, 10, 11, 12

CT-972-1 JROTC Air Force II - Grades 10, 11, 12

(Must have successfully completed JROTC Air Force I)

CT-973-1 JROTC Air Force III - Grades 11, 12 (Must have successfully completed JROTC Air Force I and II)

CT-974-1 JROTC Air Force IV - Grade 12 (Must have successfully completed JROTC Air Force I, II, and III)

Air Force Junior Reserve Officer Training Corps

Air Force JROTC's mission is to "Develop citizens of character dedicated to serving their nation and community."

The objectives of Air Force JROTC are to educate and train high school cadets in citizenship, promote community service, instill responsibility, character, and self-discipline, and provide instruction in air and space fundamentals.

Air Force JROTC is a 3- or 4-year program offered to high school students in grades 9-12. The curriculum includes the following:

Aerospace Science: acquaints students with the elements of aerospace and the aerospace environment. It introduces them to the principles of aircraft flight, the history of aviation, development of air power, contemporary aviation, human requirements of flight, cultural and global awareness, the space environment, space programs, space technology, rocketry, propulsion, the aerospace industry, astronomy, survival, and policy and organization.

Leadership Education: develops leadership skills and acquaints students with the practical application of life skills. The leadership education curriculum emphasizes discipline, responsibility, leadership, fellowship, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, and drill and ceremonies.

Wellness Program: motivates cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives.

Opportunities are provided to go on weekend trips and summer camps conducted at local training facilities. Cadets wear Air Force provided uniforms one day a week and are provided with all learning materials. No military obligation is incurred. **Each JROTC course fulfills the service learning requirement. A Service Learning Validation Form needs to be completed and submitted to the school counselor after course completion.**

CTE Career Academies at High Schools

Teacher Academy of Maryland

CT-924-1

Foundations of Curriculum and Instruction

Grades 10, 11, 12

1 credit

This course focuses on curriculum delivery models in response to the developmental needs of children and adolescents. Emphasis is placed on the development of instructional materials and activities to promote learning, classroom management strategies, and a supportive classroom environment. Students will explore basic theories of motivation that increase learning. Students will participate in guided observations and field experiences to critique classroom lessons in preparation for developing and implementing their own. Students will continue to develop the components of a working portfolio to be assembled upon completion of the internship.

CT-922-CC♥

Human Growth and Development - G/T

Grades 10, 11, 12

1 credit

This course is designed for students interested in working with children in a variety of careers. It focuses on the major theories of child development and learning. Practical experience is gained by observation of and interaction with young children. Students must be in at least the 10th grade. Students who complete Human Growth and Development and Foundations of Curriculum and Instruction with a B or higher may be eligible for college credits at Howard Community College.

CT-925-CC♥

Teaching as a Profession - G/T

Grades 10, 11, 12

1 credit

Required for all Teacher Academy of Maryland (TAM) students, this course is for students interested in a teaching career in any grade level from Early Childhood through high school. Class discussion and assignments will focus on the history, purposes, issues, ethics, laws, roles, and qualifications of the teaching profession. Students will participate in guided observations and field experiences outside of class to identify characteristics of an effective classroom teacher and to reflect upon their personal career goals. Students who complete Teaching as a Profession - G/T with a B or higher may be eligible for college credits at Howard Community College.

CT-927-1♥

CT-927-2♥

Field Experience in Education - G/T (Teacher Academy)

Grade 12

1-2 credits

Prerequisite: Successful completion of Human Growth and Development and either Teaching as a Profession or Curriculum and Instruction. Concurrent enrollment in Field Experience and the remaining course required to complete the Teacher Academy.

This course is the capstone experience for the Teacher Academy of Maryland. Students will have the opportunity to apply and extend their knowledge about teaching in a K-10 classroom setting under the supervision of a mentor teacher. During their placement, students will examine what makes an effective teacher, the importance of family and caregivers in the learning process, and methods for creating and maintaining an effective learning environment. Students will also collaborate with the mentor teacher to develop and implement lesson plans that address diverse student needs and learning styles. Once placed, students are supervised by the Teacher Academy of Maryland teacher and must schedule a portion of their placement hours during the Teacher Academy teacher's afternoon work hours to allow for monitoring and evaluation. Students must provide their own transportation to the work site.

CTE Additional Courses

CT-880-1

Advanced Design Applications

Grades 10, 11, 12 **1 credit**

(Advanced Technology Education Credit)

Prerequisite: Computer Science, Engineering, or Technology Education Credit

This is a standards-based, technological design course that provides a deeper understanding of the designed world consisting of four separate learning units, each nine weeks in length: Manufacturing Technologies, Energy and Power Technologies, Construction Technologies, and Transportation Technologies. Group and individual activities engage students in creating ideas, developing innovations, designing, fabricating, and engineering practical solutions to a variety of problems.

CT-890-1

Advanced Technological Applications

Grades 10, 11, 12 **1 credit**

(Advanced Technology Education Credit)

Prerequisite: Computer Science, Engineering, or Technology Education Credit

This is a standards-based, technological design course that provides a deeper understanding of the designed world consisting of four separate learning units, each nine weeks in length: Information and Communication Technologies, Medical Technologies, Agriculture and Related Biotechnologies, and Entertainment and Recreation Technologies. Group and individual activities engage students in creating ideas, developing innovations, designing, fabricating, and engineering practical solutions to a variety of problems.

CT-405-1♥

Computer Science Principles - AP

Grades 9, 10, 11, 12 **1 credit**

(Computer Science, Engineering or Technology Education Credit)

Prerequisite: Algebra I

This course will introduce students to creative aspects of programming, using abstractions and algorithms, working with large data sets, understanding the Internet and issues of cybersecurity, and impacts of computing that affect different populations. Students will have the opportunity to use current technologies to solve problems and create meaningful computational artifacts.

CT-400-1♥

Exploring Computer Science - Honors

Grades 9, 10, 11, 12 **1 credit**

(Computer Science, Engineering, or Technology Education Credit)

Corequisite: Algebra I

This course will give students the opportunity to delve into real-world, relevant computing problems while gaining foundation computer science knowledge. Students will engage in several in-depth projects to demonstrate the real-world applications of computing. Units will include Human Computer Iteration, Problem Solving, Web Design, Programming, Computing and Data Analysis, and Robotics.

CT-800-1

Foundations of Technology

Grades 9, 10, 11, 12 **1 credit**

(Computer Science, Engineering, or Technology Education Credit)

This course prepares students to understand and apply technological concepts and processes that are the cornerstone of the high school technology education program. Students study the nature and technological issues of the designed world. Group and individual activities engage students in creating ideas, developing innovations, design, fabricating, and engineering practical solutions. Technology content, resources, and laboratory/classroom activities allow students to apply science, mathematics, and other school subjects in authentic situations.

CT-462-1

Laboratory Assistant – BCMS

Grades 11, 12 **1 elective credit**

Prerequisite: Approval of BCMS Instructor

Under the direction of the teacher, students gain experience working in a computer lab. Students will assist in lab maintenance, including troubleshooting and basic networking. They will provide routine assistance to students enrolled in the course and create materials designed by the teacher. Students must be able to work independently. Only one credit can be earned as a student assistant; credit may only be awarded after the 20th graduation credit has been recorded.

English

The high school English program is designed to fulfill the Maryland State Department of Education's requirement that each student earns four credits in English. All students must earn one credit each in English 9, 10, 11, and 12.

LA-401-1★■

English 9

1 credit

Students read, synthesize, analyze, and respond to complex literary and informational texts that are thematically connected, exploring such themes as Coming of Age and Reflections: Past to Present. The course allows students to build on the eighth grade exposure to Shakespearean drama by studying either a Shakespearean, Greek, or modern play. Additional genres studied include the novel and the autobiography, as well as shorter texts representative of diverse media and formats. Students examine rhetorical devices and author's language as it is used to produce effective arguments and analytical papers. The development of effective speaking and listening skills is an integral part of the course as well as continued instruction in the effective and correct use of language.

LA-400-1

English 9 Seminar

1 elective credit

Prerequisite: Teacher recommendation

Corequisite: Enrollment in English 9

English 9 Seminar is an elective course for selected students who are reading no more than two years below grade level. This course supports the students' understanding of skills and concepts taught in the English 9 class by providing students with additional instructional time for explicit instruction in strategic reading, writing, vocabulary development, and language skills to ensure academic success in English 9. Instruction is provided in small group settings with a high degree of one-on-one interaction with co-teachers.

LA-402-1♥★

English 9 – Honors

1 credit

Students read, synthesize, analyze, and respond to complex literary and informational texts that are thematically connected, exploring such themes as Coming of Age and Reflections: Past to Present. The course allows students to build on the eighth grade exposure to Shakespearean drama by studying either a Shakespearean, Greek, or modern play. Additional genres studied include the novel and the autobiography as well as shorter texts representative of diverse media and formats. Students examine rhetorical devices and author's language as it is used to produce effective arguments and analytical papers. The development of effective speaking and listening skills is an integral part of the course as well as continued instruction in the effective and correct use of language. English 9 Honors requires students to have a commitment to academic pursuit, while demonstrating self-motivation and independence when addressing the demands of this accelerated course.

LA-403-1♥★

English 9 – G/T

1 credit

This class offers an enriched, differentiated, and accelerated version of English 9. Students in English 9 G/T exhibit strong reading, writing, and oral communication skills. In addition to meeting the requirements for English 9, students also receive preparation for the College Board English Language and Composition AP examination. In this course, students read, synthesize, analyze, and respond to thematically connected complex literary and informational texts. The development of effective speaking and listening skills is an integral part of the course.

English

LA-501-1●■

English 10

1 credit

Students explore the actions and reactions of individuals to the world in which they live and construct oral and written analytical responses to diverse text formats that are thematically connected, exploring such themes as Hopes and Fears and Individual and Society. Students continue their literary study of the novel and the play, and also examine the genres of the memoir and poetry. Informational texts support the unit themes. As critical readers and writers, students construct explanatory and argument responses to a variety of texts. Opportunities are provided for students to polish their spoken communication.

LA-502-1♥★●

English 10 – Honors

1 credit

Students read, synthesize, analyze, and respond in written and spoken modes to complex literary and informational texts that are thematically connected. Students study novels, essays, plays, poetry, short stories, art, music, and multimedia texts. English 10 Honors requires students to have a commitment to academic pursuit, while demonstrating self-motivation and independence when addressing the demands of this accelerated course.

LA-503-1♥★●

English 10 – G/T

1 credit

In this course, students read, synthesize, analyze, and respond in written and spoken modes to thematically connected complex literary and informational texts reflective of diverse media and formats such as novels, essays, plays, poetry, short stories, art, music, and multimedia. This class offers an enriched, differentiated, and accelerated version of English 10. Students in English 10 G/T exhibit strong reading, writing, and oral communication skills. In addition to meeting the requirements for English 10, students also receive preparation for the College Board English Language and Composition AP examination.

LA-500-1

High School English Seminar

Grades 10, 11

1 elective credit

High School English Seminar is an elective course for selected students concurrently enrolled in English 10 or English 11. The co-taught delivery model provides opportunities for additional explicit instruction and hands-on experiences for developing critical reading, writing, language, speaking, and listening skills while promoting students' independence when addressing unfamiliar and complex text.

LA-600-8 - Semester

English High School Assessment Mastery

Grades 11, 12

1/2 elective credit

Prerequisite: English 10

This course is an elective course for students who need additional assistance mastering the standards measured on the MCAP. Class instruction focuses on engaging students in whole class, small group, and one-on-one instruction based upon student needs as determined from data. Student progress will be closely monitored and documented.

English

LA-601-1★■

English 11

1 credit

Students explore American literature within the context of the American Dream, beginning with society's dream of religious freedom. Students demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works. Additionally, students analyze an individual character's struggle with the American Dream in the context of confronting social constructs and the ultimate attainment of the American ideal. Students build an awareness and understanding of American literature as a response to the social and political climates of the time. Through analytical study, students make connections between and among eras and writers. Students respond in written and spoken modes to diverse media and formats such as novels, essays, plays, poetry, short stories, art, music, and multimedia.

LA-602-1♥★

English 11 – Honors

1 credit

English 11 Honors requires students to have a commitment to academic pursuit, while demonstrating self-motivation and independence when addressing the demands of this accelerated course. Students explore American literature within the context of the American Dream, beginning with society's dream of religious freedom. Students demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works. Students read, synthesize, analyze, and respond in written and spoken modes to complex literary and informational texts.

LA-603-1♥★■

English 11 - AP [AP English Language and Composition]

1 credit

This College Board-approved course supports the College Board's AP English Language and Composition Course Description. Students construct expository, analytical, and argumentative writing assignments that are based on readings representing a wide variety of prose styles and genres. Reading both fiction and nonfiction texts and writing in a variety of rhetorical modes and for a variety of purposes, students in English 11 AP facilitate awareness of their own writing styles to develop their own inner voices.

LA-701-1★■

English 12

1 credit

Students enhance their critical reading, writing, and thinking skills, analyzing complex works of major world authors, their styles, and their contributions to the literary field and to society as a whole. Students compose explanatory and argumentative responses to diverse media and formats reflective of a variety of eras, genres, and purposes.

LA-702-1♥★

English 12 – Honors

1 credit

English 12 Honors requires students to have a commitment to academic pursuit, while demonstrating self-motivation and independence when addressing the demands of this accelerated course. Students study the works of major world authors, their styles, and their contributions to the literary field and to society as a whole. Students compose explanatory and argumentative responses to diverse media and formats reflective of a variety of eras, genres, and purposes. Students read, synthesize, analyze, and respond in written and spoken modes to diverse media and formats such as novels, essays, plays, poetry, short stories, art, music, and multimedia.

LA-703-1♥★■

English 12 – AP [AP English Literature and Composition]

1 credit

This College Board-approved course supports the College Board's AP English Literature and Composition Course Description. This intensive course provides students opportunities to examine closely works by major authors from historical, thematic, and structural perspectives. Critical reading of selected texts allows students to deepen their understanding of rhetoric, style, and purpose. The text choices draw from a myriad of titles and range from Greek literature to Scandinavian, British, French, and American literature. Writing assignments focus on critical thinking and include exposition, analysis, and argumentation.

English

LA-800-8★ - Semester

LA-800-1★ - Year

Advanced Composition

Grades 11, 12 **1/2 -1 elective credit**

Throughout this elective course students write papers in each of the four traditional rhetorical modes of description, narration, persuasion, and exposition. In addition, students may have opportunities to write creative pieces in four genres: poetry, short fiction, one-act plays, and memoir/creative nonfiction. Analysis of literature, vocabulary development, self-assessment, journaling, and revision are emphasized. This course supplements but does not replace English 11 or English 12.

LA-810-8★

LA-810-1★

African American Literature

Grades 11, 12 **1/2-1 credit**

This course exposes students to African American writers and their contributions to the development of American literature. The chronological, thematic approach helps to foster an appreciation of African-American writers from the Post-Civil War era to the present. Students will be expected to reflect on their readings both creatively and critically.

LA-830-1♥★

Humanities I - G/T (English)

Grade 9 **1 credit**

Prerequisite: Teacher recommendation

Corequisite: Concurrent enrollment in Humanities I G/T (Social Studies)

Humanities I integrates the study of United States History or Modern World History and Cultures with literature of the cultures and time periods. The course is structured around the United States History or World History curriculum and literature which illustrates the various time periods. Because students are concurrently enrolled in Humanities I G/T (Social Studies), they receive two credits, one for English and one for Social Studies, (United States History or Modern World History).

LA-831-1♥★

Humanities II - G/T (English)

Grade 10 **1 credit**

Prerequisites: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities II G/T (Social Studies)

This course integrates the study of Advanced Placement Government and Politics with literature that complements the study of government. Connections between the literature read in this course and the major political concepts of the time are discussed. Because students are concurrently enrolled in Humanities II G/T (Social Studies), they receive two credits, one for English and one for Social Studies (American Government).

LA-832-1♥★

Humanities III - AP (English) [AP English Language and Composition]

Grade 11 **1 credit**

Prerequisites: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities III G/T (Social Studies)

This course integrates the study of Advanced Placement World History or Advanced Placement U.S. History with American literature. Students receive credit for Advanced Placement World History or Advanced Placement U.S. History and are recommended to take the Advanced Placement Examination. Students are also prepared for and recommended to take the English Language and Composition AP Exam when it is offered in May. This course requires a historical research paper and a literary research paper. Because students are concurrently enrolled in Humanities III G/T (Social Studies), they receive two credits, one for English and one for Social Studies, (United States History or World History).

English

LA-833-1♥★

Humanities IV - AP (English) [AP English Literature and Composition]

Grade 12 **1 credit**

Prerequisite: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities IV G/T (Social Studies)

Humanities IV integrates the study of twentieth century history and literature as well as current issues. To enhance the non-western component of the course, students are required to complete a research paper on an aspect of a developing country. It is recommended that students in this course take the Literature and Composition AP Exam when it is offered in May. Because students are concurrently enrolled in Humanities IV G/T (Social Studies), they receive two credits, one for English and one elective credit for social studies.

LA-840-1

Journalism I

Grades 9, 10, 11, 12 **1 credit**

Journalism I is an introductory course designed to prepare students for roles on the school newspaper staff. The course strives to make connections between high school and professional journalism while also allowing students to explore and understand the impact their opinions and actions have on their high school, community, and world. This course provides students the opportunity to learn how to communicate with a broad spectrum of peers and adults. Journalism I covers the foundation skills needed to succeed in Journalism II, III, and IV by addressing ethics, writing, copy editing, designing, and financing. Through this course, students learn the criteria for newsworthy information while also gaining critical reading and cognitive skills that they can apply to situations beyond the classroom. Some assignments may include tasks outside of class. Level I students may expect to invest 1-2 hours of out-of-class time each week.

LA-841-1

Journalism II

Grades 10, 11, 12 **1 credit**

Prerequisite: Journalism I

Students learn the practical experience of producing the school newspaper. This experience includes forming a staff, an editorial board, and a business organization. Students gain experience with all tasks necessary for desktop publishing, including article writing, editing, layout design, the use of graphics, the use of photography, and paste-up techniques. Some assignments may include tasks outside of class. Level II students may expect to invest 2-3 hours of out-of-class time each week.

LA-842-1

Journalism III – Honors

Grades 11, 12 **1 credit**

Prerequisite: Journalism II

Students enrolled in this course refine and enhance journalistic skills introduced in Journalism I and II. Students communicate in a variety of forms for a variety of audiences and purposes. Advanced-level students assume leadership roles and contribute to local and national publications. Some assignments may include tasks outside of class. Level III students may expect to invest approximately 4 hours of out-of-class time each week.

LA-843-1

Journalism IV – Honors

Grade 12 **1 credit**

Prerequisite: Journalism III

Students refine journalistic skills and assume major responsibilities for the production of the school newspaper. In addition, they assist in the orientation and training of less experienced staff. Advanced-level students assume leadership roles and contribute to local and national publications. Some assignments may include tasks outside of class. Level IV students may expect to invest approximately 4 hours of out-of-class time each week.

LA-860-8★

LA-860-1★

Speech Communication I

Grades 10, 11, 12 **1/2-1 credit**

The student learns to speak effectively in both formal and informal situations, develops insight into the structure and purpose of the basic speech process, and appreciates the importance that speech plays in daily living. Skills developed include discussion, group dynamics, audience analysis, speech delivery, listening, and oral interpretation. Students may elect to participate in outside oratory events.

English

LA-865-8★

LA-865-1★

Speech Communication II

Grades 11, 12

1/2-1 credit

Prerequisite: Speech Communication I or consent of instructor

This course provides students with the opportunity to polish and refine some of the basic speech skills introduced in Speech Communication I. Experiences with formal debate, oral interpretation, reader's theatre and interpersonal communication provide the content of the program. Students may elect to participate in outside oratory events.

LA-870-1

Yearbook I

Grades 9, 10, 11, 12

1 credit

Students receive a practical, hands-on introduction to yearbook production. Students learn the tasks necessary for writing, designing, and evaluating a yearbook. Units are sequenced to parallel the publication deadlines of the school's yearbook. Students learn the techniques of business operation, advertising, promotion, and management. Students may be expected to produce a literary magazine. Some assignments may include tasks outside of class. Level I students may expect to invest 1-2 hours of out-of-class time each week.

LA-871-1

Yearbook II

Grades 10, 11, 12

1 credit

Prerequisite: Yearbook I

Students continue practical experiences in publications through the production of a yearbook, developing their skills in photography, layout, business operation, advertising, promotion, and management. In addition, students assume greater responsibility for various assignments and tasks related to yearbook production. Some assignments may include tasks outside of class. Level II students may expect to invest 2-3 hours of out-of-class time each week.

LA-872-1

Yearbook III – Honors

Grades 11, 12

1 credit

Prerequisite: Yearbook II

Students refine publication skills and assume major management responsibilities for the production of the yearbook. In addition, they assist in the orientation and training of less experienced staff. Some assignments may include tasks outside of class time. Level III students may expect to invest approximately 4 hours of out-of-class time each week.

LA-873-1

Yearbook IV – Honors

Grade 12

1 credit

Prerequisite: Yearbook III

Students polish their publication skills and assume leadership responsibilities for the production of the school yearbook. In addition, they continue to assist in the orientation and training of less experienced staff. Some assignments may include tasks outside of class. Level IV students may expect to invest approximately 4 hours of out-of-class time each week.

LA-999-1

Laboratory Asst. – English Language Arts

Grades 11, 12

1 elective credit

Working under the direction of the teacher, student assistants help distribute, collect, and store the materials of instruction; type and duplicate materials designed by the teacher; provide routine assistance to students during the administration of exercises and tests; and provide occasional tutorial assistance to students under the guidance of the teacher. Only one elective credit can be earned as a student assistant; credit may only be awarded after the 20th required graduation credit has been recorded. Students do not have access to student grades or personal data.

ESOL

The English for Speakers of Other Languages Program (ESOL) is a language assistance program for multilingual learners who need direct and intense study in academic English to accelerate access to content instruction. Course placement is based on staff recommendation, achievement in previous ESOL or English language development courses, and English language proficiency. Instruction is provided by ESOL teachers and instructional support staff.

Entering Level ESOL Courses:

These course offerings are designed for eligible multilingual learners who have limited literacy skills in their native language as well as limited proficiency in English. They provide an intense level of English language instruction in order to accelerate literacy and language skills. The entering level courses are provided as full or half credit options to accommodate students who enroll in the school system first or second semester.

EL-420-1

Entering English Language Development
Grade 9 1 World Language credit

EL-420-8

Entering English Language Development A
Grade 9 1/2 World Language credit

EL-421-8

Entering English Language Development B
Grade 9 1/2 World Language credit

This course provides multilingual learners with intensive instruction to accelerate the acquisition of vocabulary, language forms and conventions, and to increase linguistic complexity in English. Students earn one World Language credit.

EL-430-1

Entering Literacy Development
Grade 9 1 elective credit

EL-430-8

Entering Literacy Development A
Grade 9 1/2 elective credit

EL-431-8

Entering Literacy Development B
Grade 9 1/2 elective credit

This course focuses on developing foundational reading skills for multilingual learners with limited literacy skills in their native language. It includes instruction in the areas of word study, grammar, and comprehension skills. Specific objectives are differentiated for the needs of individual students and the cohort of learners.

English Language Development Courses

These course offerings are designed for multilingual learners across a range of proficiency levels, from entering through expanding (ELP1-ELP4). They provide language instruction focused on Social and Instructional Language, the Language for Language Arts, the Language for Mathematics, the Language for Science, and the Language for Social Studies. Courses are provided as full or half credit options to accommodate students who enroll in HCPSS during the first or second semesters.

EL-410-1

English Language Development 1
Grade 9 1 World Language credit

EL-410-8

English Language Development 1A
Grade 9 1/2 World Language credit

EL-411-8

English Language Development 1B
Grade 9 1/2 World Language credit

This course is designed for multilingual Learners with entering and emerging English proficiency levels (ELP 1 - ELP 2). In this course, students develop academic language in all modes of communication including listening, speaking, reading, and writing. Instruction focuses on word/phrase, sentence, and discourse dimensions of language used to access the concepts and objectives of secondary content courses. This course fulfills one World Language credit. Note: Course may not meet all colleges' entrance requirements.

ESOL

EL-510-1

English Language Development 2

Grades 9, 10 **1 World Language credit**

EL-510-8

English Language Development 2A

Grades 9, 10 **1/2 World Language credit**

EL-511-8

English Language Development 2B

Grade 9, 10 **1/2 World Language credit**

This course is designed for multilingual learners with emerging and developing English proficiency levels (ELP 2 - ELP 3). In this course, students develop academic language in all modes of communication including listening, speaking, reading, and writing. Instruction focuses on word/phrase, sentence, and discourse dimensions of language used to access the concepts and objectives of secondary content courses. This course fulfills one World Language credit. Note: Course may not meet all colleges' entrance requirements.

EL-611-1

English Language Development 3

Grades 9, 10, 11, 12 **1 World Language credit**

EL-611-8

English Language Development 3A

Grades 9, 10, 11, 12 **1/2 World Language credit**

EL-612-8

English Language Development 3B

Grades 9, 10, 11, 12 **1/2 World Language credit**

This course is designed for multilingual learners with developing and expanding English proficiency levels (ELP 3 - ELP 4). In this course, students develop academic language in all modes of communication including listening, speaking, reading, and writing. Instruction focuses on more complex word/phrase, sentence, and discourse dimensions of language used to access the concepts and objectives of secondary content courses. This course fulfills one World Language credit. Note: Course may not meet all colleges' entrance requirements.

Fine Arts • Art

The art program is designed to develop creative problem solving and studio skills in the visual arts at the highest possible level. Objectives relating to aesthetics, history and culture, and criticism are sequenced with regard for developmentally appropriate behavioral characteristics of the studio learner. All art courses satisfy the Fine Arts graduation requirement except History of Art.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Math Requirement	Math Requirement	Math Requirement	Math Elective
Earth Science	Biology	Science Requirement	Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Elective	Elective
PE/Health	Tech. Ed. Requirement	Elective	Art History AP/G/T
Art I	Art II, Art II - G/T, Photo I, or Photo I - G/T	Art III, Art III - AP, Photo II or Photo II - AP	Art IV, Art IV - AP, Photo III or Photo III - AP

Art Course Sequence

A four-year comprehensive program in visual art allows the opportunity to build a portfolio and resume for college applications, incorporate reading and writing through criticism, brainstorming, sketchbook idea generation and art history, and allows the student to embrace personal ideas and concepts. Students who are preparing a portfolio in studio art or photography that will be used for admission to college have the option to take Art III/IV and Photo II/III for double credit. For students taking AP level studio and photography courses, this provides additional studio time to prepare their portfolios. Art II may be taken for Honors credit, and both Art III/IV and Photo II/III may be taken for AP credit.

VA-400-1

Art I: Foundations of Studio Art

Grades 9, 10, 11, 12

1 credit

As the foundation course, Art I: Foundations of Studio Art is the prerequisite course for the comprehensive high school art program and fulfills the one-credit Fine Arts graduation requirement. Studio problems are designed to build creative and critical thinking skills through practice in drawing, painting, printmaking, sculpture, crafts, and other art disciplines.

VA-500-1

Art II: Developing Ideas in Media

Grades 9, 10, 11, 12

1 credit

Prerequisite: Art I or application and portfolio review
This course challenges students who continue at this level to refine their skills in fine arts media and creative problem solving. These problems become increasingly complex and require students to draw upon knowledge of both traditional and contemporary art from diverse cultures. Works of art that reflect a personal aesthetic and exhibit breadth and quality become the basis for a cumulative portfolio including a sketchbook/journal. Completion of Art I or equivalent experience is required.

VA-510-1♥

Art II: Developing Ideas in Media - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Art I or application and portfolio review

This course challenges students who continue at this level to refine their skills in fine arts media and creative problem solving. These problems become increasingly complex and require students to draw upon knowledge of both traditional and contemporary art from diverse cultures. This course is recommended for students who have demonstrated an ability to work successfully at a demanding pace. Emphasis is placed on creative problem solving, independent research, and task commitment.

VA-600-1♥

Art III: Portfolio Development – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Art II or Art II - G/T

This course challenges students to take risks, experiment with new art media, and explore new ideas through researching traditional and contemporary art from diverse cultures. Each student is expected to handle visual arts media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a cumulative portfolio including a sketchbook/journal. Each student will clearly articulate his/her intent in a written artist's statement.

Fine Arts • Art

604M♥

VA-610-1♥

Art III: Portfolio Development - AP [AP Studio Art: Drawing, 2-D Design, and 3-D Design]
Grades 10, 11, 12 **1- credit**

Prerequisite: Art II or Art II - G/T

The course begins the development of the body of work leading to the Advanced Placement Examination. It is recommended for students who have demonstrated an ability to complete challenging work successfully at a demanding pace. Emphasis is placed on creative problem solving, independent research and learning, task commitment, and special topics. It is recommended that students in this course take the AP Exam when it is offered in May.

VA-700-1♥

Art IV: Personal Directions in Art Studio - Honors

Grade 11, 12 **1 credit**

Prerequisite: Art III or Art III - AP

In this course, students develop a body of work informed by research of contemporary and master artists, cultural exemplars, and peer dialogue. Students maintain a sketchbook/journal to accumulate and investigate ideas, themes, and media. The portfolio reflects a breadth of experiences, concentration on a specific theme, and the quality execution of artworks and is defended by a personal artist's statement.

VA-710-1♥

Art IV: Personal Directions in Art Studio - AP [AP Studio Art: Drawing, 2-D Design and 3-D Design]

Grade 11, 12 **1 credit**

Prerequisite: Art III or Art III - AP

In this course, students develop a body of work informed by research of contemporary and master artists, cultural exemplars and peer dialogue. The portfolio reflects a breadth of experiences, concentration on a specific theme, and quality execution of artworks. Each student defends the portfolio in a personal artist's statement. The course continues the development of the body of work begun in Art III: Portfolio Development (AP). It is recommended that students in this course take the AP Exam when it is offered in May.

VA-720-1♥■

Art History - AP

Grades 11, 12

1 credit

Prerequisite: Art I

The Advanced Placement offering in History of Art is designed to provide the same benefits to high school students as those provided by an introductory college course in art history. In this course, students examine major forms of artistic expression from the past as well as the present and from a variety of cultures. It is recommended that students in this course take the AP Exam when it is offered in May. This course does not satisfy the fine art graduation credit. It is a general elective credit.

VA-810-1

Art Studio - Honors

Grades 10, 11, 12

1 credit

Prerequisite: Concurrent enrollment in Art III-Honors, Art IV-Honors, or New Forms in Art – G/T

The course challenges students to take risks, experiment with and expand upon art media competencies, and explore personal concepts to develop a thematic body of artwork. Students research the work of contemporary artists employing studio processes that enable them to communicate personal concepts and ideas. Each student in the course is expected to handle visual arts media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a thematic cumulative portfolio and sketchbook/journal.

VA-820-1

Art Studio - AP [Studio Art: Drawing, 2-D Design, and 3-D Design]

Grades 10, 11, 12

1 credit

Prerequisite: Concurrent enrollment in Art III-AP, Art IV-AP, or New Forms in Art – G/T

The course challenges students to take risks, experiment with and expand upon art media competencies, and explore personal concepts in developing a thematic body of artwork. Students research the work of contemporary artists employing studio processes that enable them to communicate personal concepts and ideas. Each student in the course is expected to handle visual arts media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a thematic cumulative portfolio and sketchbook/journal for the purposes of college portfolio applications. It is recommended that students in this course take the AP Exam when offered in May.

Fine Arts • Art

VA-850-1

New Forms in Art - G/T

Grades 11, 12

1 credit

Prerequisite: Art II or Photo I

This course challenges students to take risks, experiment with new art media, and explore personal concepts to develop a portfolio of artworks. Students will research the work of contemporary artists employing studio processes such as collaboration, digital technology, installation, inter-arts, mixed-media, performance, and site specific works. Each student in the course is expected to handle visual arts media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a thematic cumulative portfolio and sketchbook/journal.

VA-520-1

Photography I: Developing Ideas in Photography

Grades 10, 11, 12

1 credit

Prerequisite: Art I or application and portfolio review

In this course, students apply the language of art in producing fine art photographs. Primary experiences will center around the use of a 35mm single lens reflex camera, film processing, darkroom techniques, print manipulation, and the presentation of work. Technical skills evolve through the introduction of pinhole photography and contact printing. Experiences throughout the course will include composing, exposing, processing, enlarging images in the darkroom, and basic experiences in digital imaging.

VA-530-1

Photography I: Developing Ideas in Photography- G/T

Grades 10, 11, 12

1 credit

Prerequisite: Art I or application and portfolio review

This course explores the ways students apply the language of art in producing fine art photographs. Primary experiences will center around the use of a 35mm single lens reflex camera, film processing, darkroom techniques, print manipulation, and the presentation of work for specific purposes. Technical skills evolve through the introduction of pinhole photography and contact printings while refining personal and conceptual ideas. Experiences throughout the course will include composing, exposing, processing, enlarging images in the darkroom, and photographic digital imaging processes. This course is recommended for students who have demonstrated an ability to work successfully at a demanding pace. Emphasis is placed on creative problem solving, independent research, and task commitment, while developing a portfolio that reflects a diverse breadth of photographic experiences.

VA-620-1♥

Photography II: Portfolio Development - Honors

Grades 11, 12

1 credit

Prerequisite: Photography I

In this course, students refine and master technical skills as well as experiment with alternative approaches and materials as they compose unique photographs. Additionally, students will develop a photographic portfolio that demonstrates quality, shows breadth of formal, technical, and expressive experiences and concentrates on a specific theme or problem. Through collaboration with peers and instructors students will develop a personal aesthetic viewpoint. In-class and independent problems further the development of skills and techniques.

VA-630-1♥

Photography II: Portfolio Development – AP [AP Studio Art: 2-D Design]

Grades 11, 12

1 credit

Prerequisite: Photo I

This course begins the development of a body of work leading to the Advanced Placement Examination. Students will refine and master technical skills as well as experiment with alternative approaches and materials as they compose photographs. Additionally, students will develop a photographic portfolio that demonstrates quality, shows breadth of formal, technical, and expressive experiences and concentrates on a specific theme or problem. Through collaboration with peers and instructors students will develop a personal aesthetic viewpoint that will be demonstrated through the AP Portfolio. It is recommended that students in this course take the AP Exam when it is offered in May.

VA-740-1♥

Photography III: Personal Directions in Photography - Honors

Grade 12

1 credit

Prerequisite: Photography II or Photography II - AP

In this course students will develop a thematic body of work that can be used for college admissions, scholarships and student exhibitions. As students move from the second to the third level in photo studio, the content sharpens in focus upon self-assessment and evaluation. Students continue working in a sketchbook/journal to refine personal imagery based on the study of master artists.

Fine Arts • Art

VA-750-1♥

Photography III: Personal Directions in Photography - AP [AP Studio Art: 2-D Design]

Grade 12

1 credit

Prerequisite: Photography II or Photography II - AP

In this course each student will develop a thematic body of work that can be used for the Advanced Placement portfolio, college admissions, scholarships, and student exhibitions. As students move from the second to the third level in photo studio, the content sharpens its focus upon self-assessment and evaluation. Students continue working in a sketchbook/journal to refine personal imagery based on the study of master artists. It is recommended that students in this course take the AP Exam when it is offered in May.

VA-830-1

Photo Studio - Honors

Grades 10, 11, 12

1- credit

Prerequisite: Concurrent enrollment in Photo II-Honors, Photo III-Honors, or New Art Forms – G/T

The course challenges students to take risks, experiment with and expand upon photographic media competencies, and explore personal concepts in developing a thematic body of artwork. Students research the work of contemporary photographers employing studio processes that enable them to communicate personal concepts and ideas. Each student in the course is expected to handle photographic media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a thematic cumulative portfolio and sketchbook/journal.

VA-840-1

Photo Studio - AP [AP Studio Art: 2-D Design]

Grades 10, 11, 12

1 credit

Prerequisites: Concurrent enrollment in Photo II-AP, Photo III-AP, or New Art Forms – G/T

The course challenges students to take risks, experiment with and expand upon art media competencies, and explore personal concepts in developing a thematic body of artwork. Students research the work of contemporary artists employing studio processes that enable them to communicate personal concepts and ideas. Each student in the course is expected to handle visual arts media with a sense of quality, breadth, and concentration on a particular interest or problem as evidenced in a thematic cumulative portfolio and sketchbook/journal for the purposes of college portfolio applications. It is recommended that students in this course take the AP Exam when offered in May.

Fine Arts • Dance

The study of dance promotes aesthetic sensitivity and provides an opportunity for students to experience intellectual, physical, emotional, and social growth. Students observe, respond, create, and perform using the body as an instrument to communicate feelings, thoughts, and ideas. Through exploring dance concepts, students demonstrate critical thinking skills and core values, and develop personal integrity. Dance education fosters positive student interaction and an appreciation for diverse points of view, while establishing strong human bonds which transcend racial, ethnic, and socioeconomic barriers. The sequentially developed program presents a broad cultural and historical perspective, providing unique opportunities for cross-curricular connection. All dance courses satisfy the Fine Arts Graduation requirement.

Dance Course Sequence

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Math Requirement	Math Requirement	Math Requirement	Math Elective
Earth Science	Biology	Science Requirement	Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Elective	Elective
PE/Health	Tech. Ed. Requirement	Elective	Dance IV or Dance IV - G/T Junior Dance Company or Dance Company*
Dance I or Junior Dance Company or Dance Company*	Dance II or Junior Dance Company or Dance Company*	Dance III or Dance III - G/T or Junior Dance Company or Dance Company*	Dance Seminar: Education and Production - G/T

* By audition only

A four-year comprehensive program in dance allows students to discover their own inherent aptitude for the communication of ideas, thoughts, and feelings through the art of dance. Students interested in pursuing dance in college should plan on building their performance portfolio as soon as possible. Students in need of additional performance opportunities have the option to audition for one or both of the performance ensembles offered: Junior Dance Company or Dance Company. By auditioning into Junior Company or Dance Company, students have the opportunity to perform at a challenging pace. Both groups have opportunities to perform at various venues locally and nationally.

The G/T Intern/Mentor Program offers advanced students desiring a more rigorous and challenging experience the opportunity to mentor under the dance teachers in the capacity of a teaching assistant.

DT-400-1

Dance I

Grades 9, 10, 11, 12

1 credit

In this Fine Arts course, students are introduced to a basic working knowledge of performance concepts that they can apply to all dance forms. Experiences are based on fundamentals of ballet, modern, and jazz dance. This course fulfills the graduation requirement for the Fine Arts elective as it provides instruction in aesthetics, dance history, anatomy, choreographic techniques, and performance components. The number of required non-school hour practices, events, and performances during a school year may not exceed 15.

DT-500-1

Dance II

Grades 9, 10, 11, 12

1 credit

Prerequisite: Dance I

In this Fine Arts course students are challenged in sessions of dance technique that use a working knowledge of performance concepts that students will apply to all dance forms. Experiences are based on further developing principles and techniques of ballet, modern, and jazz dance. This course fulfills the graduation requirement for the Fine Arts elective as it provides instruction in aesthetics, dance history, anatomy, and choreographic techniques. Performance components beyond the regular school day are required. Completion of Dance I or equivalent experience is required. The number of required non-school hour practices, events, and performances during a school year may not exceed 15.

Fine Arts • Dance

DT-600-1

Dance III

Grades 9, 10, 11, 12

1 credit

Prerequisite: Dance II

In this Fine Arts course, students are challenged in sessions of dance techniques that use their maximum movement range. Various styles of dancing are explored. Individuality of artistic expression is encouraged through improvisation and composition, using specific choreographic forms. This course fulfills the Fine Arts elective requirement as it provides instruction in aesthetics, dance history, anatomy, and choreographic techniques. Performance components beyond the regular school day are required. Completion of Dance II or equivalent experience is required. The number of required non-school hour practices, events, and performances during a school year may not exceed 15.

DT-700-1

Dance IV

Grades 9, 10, 11, 12

1 credit

Prerequisite: Dance III

In this Fine Arts course, students are challenged in sessions of dance techniques that enhance their maximum movement range. Various styles of dancing are explored. Individuality of artistic expression is encouraged through improvisation and composition, using specific choreographic forms. The majority of the class time will be dedicated to providing opportunities to utilize production components and further develop choreographic skills. Performance components beyond the regular school day are required. Completion of Dance III or equivalent experience is required. The number of required non-school hour practices, events, and performances during a school year may not exceed 20.

DT-711-1♥

Dance Seminar: Education and Production - G/T

Grades 10, 11, 12

1 credit

Prerequisite: Application and Director Approval

In this Fine Arts course, an emphasis is placed on original creation, portfolio development, independent research, task commitment and special topics related to Dance. The majority of the class time will be dedicated to the creation of a Capstone project in preparation for college and career opportunities. Performance components beyond the regular school day are required. The number of required non-school hour practices, events, and performances during a school year may not exceed 20.

DT-720-1♥

Dance Company - G/T

Grades 10, 11, 12

1 credit

Prerequisite: Audition Only

In this Fine Arts course, students are accelerated in rigorous sessions of dance techniques that use their maximum movement range. Students will have the opportunity to learn and perform a variety of choreography in order to refine technique and artistic expression. Students will also set solo and group choreography with emphasis on originality and collaboration. Production, performance, and composition are the major components of this performance ensemble. Additionally, students will refine a portfolio that demonstrates originality, quality, and breadth of formal, technical and expressive experiences. Performance components beyond the regular school day are required. The number of required non-school hour practices, events, and performances during a school year may not exceed 30.

DT-730-1♥

Junior Dance Company - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Audition Only

In this Fine Arts course, students are challenged in rigorous sessions of dance techniques that use their maximum movement range. Students will have the opportunity to learn and perform a variety of choreography in order to develop technique and artistic expression. Students will also create group choreography with emphasis on the creative process, collaboration, and the elements of composition. Production, performance, and composition are the major components of this performance ensemble. Additionally, students will create a portfolio that demonstrates originality, quality, and breadth of formal, technical, and expressive experiences. Performance components beyond the regular school day are required. The number of required non-school hour practices, events, and performances during a school year may not exceed 30.

Fine Arts • Music

Each course in the music program is designed to develop skills, understanding, and musicality at the highest possible level. Inherent in the musical experience is a simultaneous combination of visual, auditory, and kinesthetic learning, as well as the emotional connection to the art form. Additionally, the process of musical study enhances the development of creative and critical thinking skills, affords opportunity to build individual and group discipline, and increases achievement through both individual and collective effort.

Students enrolling in the performance-based courses, such as those in band, chorus, and orchestra, should be aware that attendance at rehearsals, sectional practices, and performances is an integral part of the course. Every effort is made by directors to arrange sectional and pre-concert rehearsals and to schedule concerts within the context of the school's master schedule. Prior to registration for these classes, music students and their parents should carefully review Board of Education Policies 8000-8120 concerning requirements. All music courses satisfy the Fine Arts graduation requirement.

Music Course Sequence

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Math Requirement	Math Requirement	Math Requirement	Math Elective
Earth Science	Biology	Science Requirement	Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Elective	Elective
PE/Health	Tech. Ed. Requirement	Music Theory I, Music Technology or another music course	Music Theory I or II AP, Music Technology or another music course
Music (courses in Band, Chorus, Orchestra)*	Music (courses in Band, Chorus, Orchestra)*	Music (courses in Band, Chorus, Orchestra)*	Music (courses in Band, Chorus, Orchestra)*

* May be taken for G/T credit

A four-year comprehensive music program with a focus in performance allows students the opportunity to develop the requisite musical skills necessary to build a portfolio and resume required for college applications. Students may be able to participate in multiple music courses during the same year if scheduling can be arranged. Music courses – Wind Ensemble G/T, Chamber Choir G/T, and String Orchestra G/T – may be taken for G/T credit based on an audition. Music Theory II AP is for AP credit – Music Theory I is a prerequisite.

MU-400-1

Band - Concert

Grades 9, 10, 11, 12

1 credit

Prerequisite: Audition and director approval

Students perform a variety of band literature, with an emphasis placed on building a foundation of individual and ensemble performance skills. The band may participate in concerts and performance assessments. After-school activities and practices 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 may not exceed 25.

MU-500-1

Band - Symphonic/Marching

Grades 9, 10, 11, 12

1 credit

Prerequisites: Audition and director approval

Students perform band literature representing a variety of styles and historical periods in concerts, annual local and state performance assessments, some athletic events, and parades. Emphasis is on both individual and ensemble skill development. 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 may not exceed 40.

Fine Arts • Music

MU-600-1

Band - Symphonic Winds/Marching

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform band literature from a variety of styles and historical periods in concerts, in performance assessments, athletic events, and parades. The band performs more difficult music than Symphonic/Marching Band (if it is offered). 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 may not exceed 40.

MU-800-1

Band - Wind Ensemble/Marching - G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Application and audition

Students perform with and meet the curricular requirements of the Symphonic Winds/Marching. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-480-1

Percussion Ensemble

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform various percussion ensemble and/or band music. The ensemble may perform in concerts, local and state performance assessments, athletic events, and parades. Both individual and ensemble skill development 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 may not exceed 25.

MU-840-1

Percussion Ensemble G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform with and meet the curricular requirements of the Percussion Ensemble. In addition,

this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-580-1

Jazz Ensemble

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform a variety of traditional and popular jazz, investigating jazz theory, improvisation, performance techniques, styles, and literature, both individually and in the ensemble. Students may perform in concerts and performance assessments. After-school activities and practices 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 may not exceed 25.

MU-880-1

Jazz Ensemble - G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform with and meet the curricular requirements of Jazz Ensemble. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-680-1

Instrumental Ensemble

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Previous instrumental experience and director approval

Students perform a variety of music representing various styles and genres in small ensemble experiences. Students may perform in concerts and recitals. After-school activities and practices 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 may not exceed 15.

Fine Arts • Music

MU-410-1

Chorus

Grades 9, 10, 11, 12

1 credit

Students perform a variety of choral literature representing various styles and historical periods, for soprano, alto, tenor, and bass voices. The Chorus may perform in concerts and performance assessments. After-school activities and practices 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 may not exceed 25. All students interested in group singing may participate.

MU-510-1

Concert Choir

Grades 9, 10, 11, 12

1 credit

Prerequisites: Audition and director approval

Students perform choral literature representing various styles and historical periods, for soprano, alto, tenor, and bass voices. The Concert Choir may perform in concerts, performance assessments, and community programs. After-school activities and practices 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 may not exceed 40.

MU-810-1♥

Concert Choir - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisites: Application and audition

Students perform with and meet the curricular requirements of the Concert Choir. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-812-1♥

Chamber Choir - G/T

Grades 10, 11, 12

1 credit

Prerequisites: Application and audition

Students perform with and meet the curricular requirements of the Vocal Ensemble. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-780-1

Vocal Ensemble

Grades 9, 10, 11, 12

1 credit

Prerequisites: Audition and director approval

Students perform choral literature representing a variety of styles and genres in small ensemble experiences. Performances may include concerts, performance assessments, and community programs. After-school activities and practices 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 may not exceed 15.

MU-811-1♥

Vocal Ensemble - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisites: Application and audition

Students perform with and meet the curricular requirements of the Vocal Ensemble. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-450-1+

Music Technology I

Grades 9, 10, 11, 12

1 credit

Students learn basic compositional techniques and apply them using notation and sequencing software programs. Students utilize, analyze, describe, assess, and discuss various compositional techniques using original compositions. Students also develop multimedia presentations to describe and accompany their original music compositions, and present those compositions in a classroom or concert setting. All students interested in music technology may participate.

MU-550-1

Music Technology II

Grades 10, 11, 12

1 credit

Prerequisite: Completion of Music Technology I or teacher approval

Students learn advanced compositional techniques and apply them using professional level notation and sequencing software programs. Emphasis is on more complex manipulation and editing of audio and video, and advanced study and usage of notational typesetting techniques.

Fine Arts • Music

MU-420-1

String Ensemble

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students will perform a variety of orchestral literature while developing individual and ensemble skills in concerts, performance assessments, and community programs. 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 may not exceed 40.

MU-520-1

String Orchestra

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Audition and director approval

Students perform orchestral literature from a variety of styles and historical periods in concerts, performance assessments, and community programs. Emphasis is on skill development, both individual and in the ensemble. 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 may not exceed 40.

MU-820-1

String Orchestra - G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Application and audition are required. Students perform with and meet the curricular requirements of the String Orchestra. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-430-1

Guitar I

Grades 9, 10, 11, 12 **1 credit**

Students develop basic guitar techniques through performing solo and ensemble guitar literature from difficulty levels I and II. Skills emphasized include tuning and proper tone production, note reading using traditional notation and guitar tablature, and utilizing current technology to assist in developing basic improvisational and compositional techniques. All students interested in learning guitar may participate.

MU-530-1

Guitar II

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Completion of previous level(s) or teacher approval

Students develop intermediate guitar techniques through performing solo and ensemble guitar literature from difficulty levels III and IV. Skills emphasized include identifying and analyzing musical elements and structural characteristics of various styles and genres and utilizing current technology to assist in further development of improvisational and compositional techniques. After-school activities, such as recitals and performances, may be required, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year may not exceed 5.

MU-830-1

Guitar III/IV - Honors

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Completion of previous level(s) or teacher approval

Students develop advanced guitar techniques through performing solo and ensemble guitar literature from difficulty levels V and VI. Skills emphasized include performing with alternate tunings and more sophisticated chord progressions and developing advanced improvisational and compositional techniques. After-school activities, such as recitals and performances, may be required, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year may not exceed 10.

MU-831-1

Guitar III/IV - G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Audition and director approval

Students perform with and meet the curricular requirements of Guitar III/IV - Honors. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

Fine Arts • Music

MU-470-1

Piano I

Grades 9, 10, 11, 12 **1 credit**

Students develop basic piano techniques through performing a variety of piano literature representing various styles and genres from difficulty levels I and II. Skills emphasized include performing with independent parts for right and left hands, note reading using traditional notation, and utilizing current technology to assist in developing basic improvisational and compositional techniques. All students interested in learning piano may participate.

MU-570-1

Piano II

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Completion of previous level(s) or teacher approval

Students develop intermediate piano techniques through performing a variety of piano literature representing various styles and genres from difficulty levels III and IV. Skills emphasized include identifying and analyzing musical elements and structural characteristics of various styles and genres and utilizing current technology to assist in further development of improvisational and compositional techniques. After-school activities, such as recitals and performances, may be required, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year may not exceed 5.

MU-870-1

Piano III/IV - Honors

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Completion of previous level(s) or teacher approval

Students develop advanced piano techniques through performing a variety of piano literature representing various styles and genres from difficulty levels V and VI. Skills emphasized include performing scales and arpeggios in all keys and developing advanced improvisational and compositional techniques. After-school activities, such as recitals and performances, may be required, and grades may reflect such participation. The number of required non-school hour performances and practices during a school year may not exceed 10.

MU-871-1

Piano III/IV - G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Audition and director approval

Students perform with and meet the curricular requirements of Piano III/IV - Honors. In addition, this course provides a performance-based curriculum for advanced level learners, focusing on the development of expressive and artistic musical experiences through student driven work to learn the language of music. Refining performance skills, while increasing the ability to read new music at sight are critical to this course. The number of required non-school hour performances and practices during a school year may not exceed 40.

MU-460-1

Music Theory I

Grades 9, 10, 11, 12 **1 credit**

Students learn the basic elements of music and their applications in elementary composition. Aural development is stressed throughout the year through rhythmic and melodic dictation and sight-singing. Music technology will be used as a resource to develop aural and compositional skills. A student with limited experiences in music must receive teacher approval.

MU-860-1

Music Theory II - AP [AP Music Theory]

Grades 10, 11, 12 **1 credit**

Prerequisite: Music Theory I or teacher approval

Students learn more advanced concepts in music theory as well as twentieth-century compositional techniques. Aural development will continue through sight-singing and rhythmic and melodic dictation. Music technology will be used as a resource to develop aural and compositional skills. It is recommended that students in this course take the AP Exam when it is offered in May.

Fine Arts • Theatre Arts

The Theatre Arts Program is designed to develop performance and production skills, creative collaboration, and aesthetic appreciation of Theatre at the highest possible level. The process of Theatre Arts study enhances the development of creative and critical thinking skills, affords opportunities to build individual and group work ethics, and increases achievement through both individual and collective efforts. All Theatre Arts courses satisfy the Fine Arts graduation requirement. The Theatre Arts Program affords opportunities in co-curricular productions that allow for mastery and application of performance and production skills taught in Theatre Arts courses.

Theatre Arts Course Sequence

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Math Requirement	Math Requirement	Math Requirement	Math Elective
Earth Science	Biology	Science Requirement	Elective
U.S. History	American Government	World History	Elective
World Language	World Language	Elective	Elective
PE/Health	Tech. Ed. Requirement	Elective	Elective
Theatre Arts I	Theatre Company, Theatre Company - G/T, Musical Theatre Company, Musical Theatre Company - G/T	Theatre Company, Theatre Company - G/T, Musical Theatre Company, Musical Theatre Company - G/T	Theatre Company, Theatre Company - G/T, Musical Theatre Company, Musical Theatre Company - G/T

A four-year comprehensive program in Theatre Arts allows the opportunity to build a performance-based skill set, portfolio, and resume for college applications, and incorporate persuasive communication skills, text analysis, and critical reading and writing through criticism in performance and/or technical theatre. Students may further enhance this experience via participation in the co-curricular, after-school main stage production program.

DT-410-1

Theatre Arts I

Grades 9, 10, 11, 12

1 credit

Theatre Arts I is a performance-based course which offers students an introduction to the process and production of theatre. Students will use critical thinking and problem solving to create personal meaning through collaborative performances. Students will use theatre practices to create, perform, and reflect in social and historical contexts. An expectation is that students will attend live theatrical productions during after-school hours. The number of required non-school hour events during a school year may not exceed 6.

DT-741-1

Theatre Company

Grades 9, 10, 11, 12

1 credit

Prerequisite: Theatre I or application and audition

In this course, students collaborate as a production company working as directors, writers, actors, designers, and technicians on theatrical projects. Exploring plays and theatre processes from a variety of time periods and cultures, students develop performances and designs for production. Students in this course are expected to participate in class project performances. The number of required non-school hour practices, events, and performances during a school year may not exceed 25. Students are encouraged to be a part of the co-curricular productions. This course can be repeated for elective credit.

Fine Arts • Theatre Arts

DT-751-1

Theatre Company - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Theatre I or application and audition

In this course, students assume leadership within the production company working as directors, writers, actors, designers, and technicians on theatrical projects. Synthesizing historical and cultural perspectives, students will justify their artistic choices. Students will create a digital portfolio showcasing their work from the course. This class will cultivate a theatre artist who is empowered to make theatre with integrity that reflects personal meaning and engages the community. Students in this course are expected to participate in class project performances. The number of required non-school hour practices, events, and performances during a school year may not exceed 25. Students are encouraged to be a part of the co-curricular productions. This course can be repeated for elective credit.

DT-761-1

Musical Theatre Company

Grades 9, 10, 11, 12

1 credit

Prerequisite: Theatre I or application and audition

In this course, students collaborate as a production company working as directors, lyricists, composers, choreographers, actors, designers, and technicians on theatrical projects. Exploring musicals and theatre processes from a variety of time periods and cultures, students develop performances and designs for production. Students in this course are expected to participate in class project performances. The number of required non-school hour practices, events, and performances during a school year may not exceed 25. Students are encouraged to be a part of the co-curricular productions. This course can be repeated for elective credit.

DT-771-1

Musical Theatre Company - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Theatre I or application and audition

In this course, students assume leadership within the production company working as directors, writers, actors, designers, and technicians on theatrical projects. Synthesizing historical and cultural perspectives, students will justify their artistic choices. Students will create a digital portfolio showcasing their work from the course. This class will cultivate a theatre artist who is empowered to make theatre with integrity that reflects personal meaning and engages the community. Students in this course are expected to participate in class project performances. The number of required non-school hour practices, events, and performances during a school year may not exceed 25. Students are encouraged to be a part of the co-curricular productions. This course can be repeated for elective credit.

DT-791-1

Theatre Apprenticeship - G/T

Grades 10, 11, 12

1 credit

Prerequisite: Theatre I or application and audition

In this Fine Arts course, an emphasis on training a new generation of theatre artists through original creation, portfolio development, independent research, task commitment, and special topics related to Theatre. The majority of the class time will be dedicated to production team tasks connected to the co-curricular productions and/or classroom instruction supervised by the Theatre Arts teacher. Performance components beyond the regular school day are required. The number of required non-school hour practices, events and performances during a school year may not exceed 30. This course can be repeated for elective credit.

Health Education

HEALTH EDUCATION

Health Education helps students develop the knowledge, attitudes, and skills they need to avoid risky behavior and maintain and improve their health. Health instruction gives students opportunities to practice skills that result in health-promoting behaviors. The standards for health education are designed to help students become health literate, obtain, interpret, and understand basic health information and services, and use such information and services in ways that enhance health. All students who entered grade 9 prior to the 2021-2022 school year are required to earn one half credit in Health Education for graduation. All students who enter grade 9 in the 2021-2022 school year and after are required to earn one credit in Health Education for graduation.

HE-900-8■

Health I

Grade 9 (required for graduation) 1/2 credit

This course provides students with functional knowledge and health literacy skills to reduce health risks and enhance the health and well-being of self and others. Students will engage with this content in the context of the National Health Education Standards skills. Specific topics will include: social and emotional health; substance abuse prevention; healthy eating; disease prevention and control; violence and injury prevention, and sexual health. ***This course should be taken sequentially with lifetime fitness in Grade 9.***

HE-920-8

Health II

Grades 10, 11, 12 1/2 credit

Prerequisite: Health I

This course expands upon student development of skills, attitudes, and behaviors to promote college and career readiness. Students develop, practice, and apply skills for health literacy, including analyzing influences, accessing valid and reliable information, interpersonal communication, decision-making, goal setting, self-management, and advocacy. ***This course is a graduation requirement for students entering grade 9 in 2021-22 school year or later.***

HE-950-8

HE-950-1

Current Health Issues

Grades 10, 11, 12

1/2-1 credit

Prerequisite: Health I

This course is designed to develop skills for living healthy lifestyles among adolescents preparing to enter college and the world of work. The course is organized around the Health Education National Standards placing a greater emphasis on personal skills. Students will discuss and apply a variety of skills to everyday situations they may face. Skills include how to determine the validity of health resources and services, analyzing internal and external influences on personal health behaviors, verbal and nonverbal skills to develop and maintain healthy personal relationships, making healthy decisions, setting personal health goals, and advocating for personal, family and community health.

SCHOOL COUNSELING

ST-999-1

Student Services Office Assistant/Tutor

Grade 12

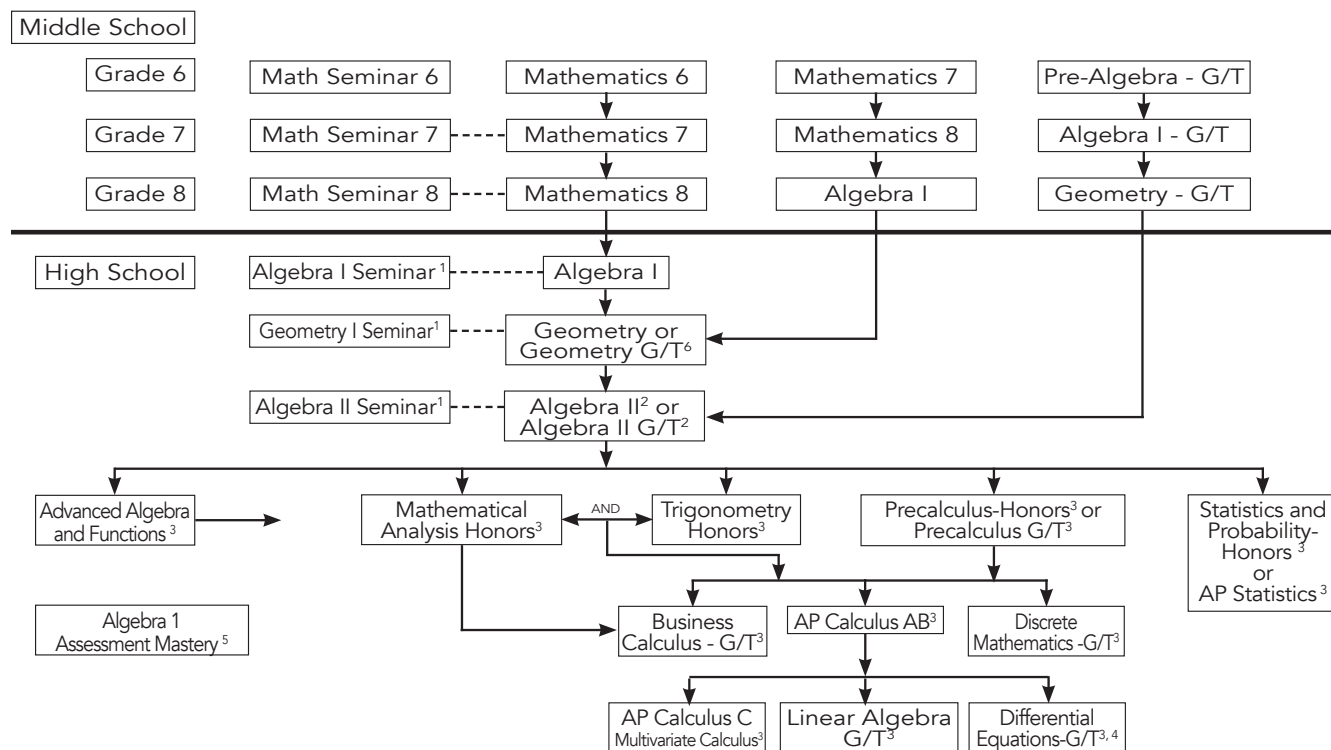
1 elective credit

Under the direction of the School Counseling Team Leader, students will gain experience working in a high school counseling center. Students will collect and distribute materials, operate equipment, assist students, locate career and college information, process materials, perform clerical duties, and other duties as assigned. Students will be required to take a mid-term and final exam as with other credit bearing courses. Only one elective credit may be earned as a student assistant.

Students have the option of earning a credit only or earning a credit AND up to 75 student service learning hours. If a student wishes to earn service learning hours using this option, pages 1 and 2 of an Individual Service Learning Project Proposal should be completed and submitted to the School Counseling Team Leader and Principal for approval. The student must prepare for additional projects, mediation or tutoring assignments beyond the duties of other office assistants in order to be approved for service learning hours. Upon completion of the course, the student must complete the Service Learning Validation Form in order to be awarded the 75 service learning hours.

Mathematics

The Howard County Public School System's mathematics program is built upon the HCPSS Mathematics Standards, which are aligned with Maryland's College and Career-Ready Standards for Mathematics. Middle and high school mathematics course standards set a rigorous definition of college and career readiness by requiring that students develop a depth of understanding and opportunities to apply mathematics to real-life situations. Mathematical reasoning, problem solving, modeling, communication, connections, and the strategic use of appropriate tools and technology are major components of each mathematics course.



Note 1: Algebra I Seminar, Geometry Seminar, and Algebra II Seminar are elective credits to be taken together with their corresponding course.

Note 2: Algebra 2 and Algebra 2 G/T satisfy the transition course experience if taken in grade 12 with additional content modules.

Note 3: These courses serve as eligible transition mathematics courses for students in grade 12 who have not achieved College and Career Readiness by the end of the eleventh grade.

Note 4: Differential Equations G/T is an option for advanced mathematics students who have completed or are concurrently enrolled in AP Calculus C/Multivariate Calculus.

Note 5: Algebra 1 Assessment Mastery is a one-semester, elective course for students who have passed the Algebra I course and have not passed the Algebra I Assessment.

Note 6: A student may enroll in the one-semester SAT Prep (elective) in any sequence after the completion of high school Geometry.

MA-401-1★●■

Algebra I

Grades 9, 10, 11, 12

1 credit

This course focuses on the mastery of five critical areas: (1) developing understanding and investigating relationships between quantities and reasoning with equations; (2) developing understanding and applying linear and exponential relationships; (3) performing arithmetic operations on polynomial expressions, solving equations, inequalities, and systems of equations; (4) using properties of rational and irrational numbers to develop an understanding of quadratic functions; and (5) investigating trends and modeling with descriptive statistics.

MA-400-8

MA-400-1

Algebra I Seminar

Corequisite: Concurrent enrollment in Algebra I

Grades 9, 10, 11

1/2-1 elective credit

Algebra I Seminar is an elective course for students concurrently enrolled in Algebra I. The course provides students with additional instructional time to master content, engage in applications-based problem solving, and develop the behaviors defined by the Standards for Mathematical Practices.

Mathematics

MA-410-8

Algebra I Assessment Mastery

Grades 9, 10, 11, 12 **1/2 elective credit**

This course is an elective course for students who have passed the Algebra I course and have not passed the MCAP Algebra I Assessment. The course fulfills the requirement for appropriate assistance before a student can re-take the MCAP–Algebra I Assessment. Instruction is offered with a high degree of one-on-one and small group interaction with the teacher.

MA-431-1★■

Geometry

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Algebra I

This course focuses on the development of transformational, Euclidean, and coordinate geometry with extensive real-world application. Students work with rigid motions, dilations, and constructions of geometric figures to establish criteria for determining if two figures are similar and/or congruent. Students prove theorems and apply concepts of proportional reasoning to begin to explore right triangle trigonometry. Students also explore probability of compound events.

MA-430-8

MA-430-1

Geometry Seminar

Grades 10, 11 **1/2-1 elective credit**

Corequisite: Concurrent enrollment in Geometry

Geometry Seminar is an elective course for students concurrently enrolled in Geometry. The course provides students with additional instructional time to master content, engage in applications-based problem solving, and develop the behaviors defined by the Standards for Mathematical Practices.

MA-433-1♥★

Geometry – G/T

Grade 9, 10, 11, 12 **1 credit**

Prerequisite: Algebra I

In this Gifted and Talented course, students will focus on the development of transformational, Euclidean, and coordinate geometry with extensive real-world application. Students work with rigid motions, dilations, and constructions of geometric figures to establish criteria for determining if two figures are similar and/or congruent. Student will prove and use theorems, definitions, and postulates to explain mathematical conjectures for various geometric figures and angle concepts. Students also explore probability of compound events, and an introduction to trigonometry.

MA-461-1★■

Algebra II

Grades 9, 10, 11, 12 **1 credit**

Prerequisites: Algebra I and Geometry

This course extends the study of topics introduced in Algebra I. The emphases on linear, quadratic, exponential, logarithmic, polynomial, and rational functions are motivated by data investigations. Graphing calculators are an integral part of this course. This course may be taken concurrently with Geometry.

MA-460-8

MA-460-1

Algebra II Seminar

Grades 10, 11, 12 **1/2-1 elective credit**

Corequisite: Concurrent enrollment in Algebra II

Algebra II Seminar is an elective course for students concurrently enrolled in Algebra II. It provides students with additional instructional time to master essential algebraic content and engage in applications-based problem solving, communication of mathematical ideas, and reasoning and proof. This course provides the opportunity for students to improve study skills and build mathematical foundations for future mathematical study. As an integral component of the course, technology facilitates investigation and deepens understanding.

MA-463-1♥★

Algebra II – G/T

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: Algebra I, Geometry, or Geometry - G/T

This course is for students capable of and interested in progressing through the concepts of Algebra II - G/T, Algebra II and enrichment topics at an accelerated rate and in more depth. Course requirements are rigorous, with an emphasis on mathematical reasoning and communication. Graphing tools are an integral part of this course.

Mathematics

MA-491-1★

Advanced Algebra and Functions

Grades 11, 12

1 credit

Prerequisites: Algebra II or Algebra II G/T

This course is designed to further student understanding of the content initially presented in Algebra II. This course, collaboratively developed with Howard Community College, is designed to prepare students for entry into a college level, credit-bearing mathematics course. In addition to college level strategies, topics include linear, exponential, logarithmic, quadratic, polynomial, rational, radical, and absolute value functions. Time will also be spent on applications of algebraic functions, matrices, and conic sections. Graphing tools are an integral part of the course. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-502-1♥★

Mathematical Analysis – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

This course serves as a foundation for students who will be taking calculus. It focuses on graphical analysis through the study of sequence and series; polynomials, rational, radical, exponential, logarithmic, and logistic functions; continuity and limits; vectors; and absolute value, greatest integer, and piecewise functions. This course emphasizes the use of graphing tools. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-522-1♥★

Trigonometry – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

This course serves as a foundation for students who will be taking calculus. It focuses on right triangle trigonometry, circular functions, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities, trigonometric equations, coordinate geometry, oblique triangles, conic sections, parametric equations, and polar coordinates. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-542-1♥★■

Precalculus – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

This course extends the concepts of algebra and includes topics in trigonometry, analytic geometry, manipulating various function families, and exploring limits for the various function families. This course is for students capable of and interested in progressing through the concepts of precalculus. Course requirements are rigorous, with an emphasis on mathematical reasoning and communication. Graphing tools are an integral part of this course. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-543-1♥★

Precalculus – G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

This course extends the concepts of algebra and includes topics in trigonometry; statistics; parametric, polar, trigonometric, and rational functions; data analysis; and sequences and series. This course is for students capable of and interested in progressing through the concepts of pre-calculus and enrichment topics at an accelerated rate and in more depth. Course requirements are rigorous, with an emphasis on mathematical reasoning and communication. Graphing tools are an integral part of this course. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-563-1♥★

Statistics and Probability – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

This course includes the major concepts and methods used to collect, analyze, and draw conclusions from data. Students will use the statistical problem solving and data science process to interpret categorical and quantitative data, make inferences, and justify conclusions from sample surveys, experiments, and observational studies. Students will apply probability rules to calculate expected values, analyze and compare strategies on the basis of expected values, and evaluate the outcomes of decisions. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

Mathematics

MA-565-1♥★■

Statistics – AP

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II - G/T

Statistics AP offers students an opportunity to learn college level, non-calculus based statistics that focuses on four major topics: data exploration, study planning, probability as it relates to distributions of data and simulations, and inferential reasoning. The course content prepares students to meet the rigor and the calculator requirements of the Advanced Placement examination. Graphing calculators are an integral part of this course. It is recommended that students in this course take the AP Exam when it is offered in May. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-643-1♥★

Discrete Mathematics – G/T

Grade 11, 12

1 credit

Corequisite: Precalculus - G/T

This course is an introduction to the study of Discrete Mathematics, a branch of contemporary mathematics that develops reasoning and problem-solving abilities, with an emphasis on proof. Topics include logic, mathematical reasoning and proof, set theory, combinatorics, probability cryptology, and graph theory. Course requirements are rigorous with an emphasis on mathematical reasoning and communication. This course is intended for students interested in mathematics and/or the computer sciences. Graphing tools are an integral part of this course. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-603-1♥★■

Business Calculus - G/T

Grade 11, 12

1 credit

Prerequisite: Mathematical Analysis - Honors, Precalculus – Honors or Precalculus - G/T

Business Calculus - G/T is an applications-based calculus course. Concepts of rate of change and differentiation of functions are applied to such topics as motion, optimization, and average cost. Concepts of accumulation of change and integration of functions are applied to such topics as present and future value and population growth. The content of this course is not intended to prepare students for the Advanced Placement exam. Graphing tools are an integral part of

this course. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-625-1♥★■

Calculus AB – AP

Grades 10, 11, 12

1 credit

Prerequisites: Precalculus – Honors, Precalculus – G/T or Mathematical Analysis – Honors and Trigonometry – Honors

This course is fundamental to the study of all advanced mathematics, science, and engineering. The content includes the study of limits, derivatives, algebraic and transcendental functions, differentials, indefinite integrals, applications of derivatives and definite integrals, and methods of integration. The course content prepares students to meet the rigor and the calculator requirements of the Advanced Placement examination, AB Level. It is recommended that students in this course take the AP Exam when it is offered in May. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-705-1♥★■+

Calculus C/Multivariate Calculus – AP [AP Calculus BC]

Grades 11, 12

1 credit

Prerequisite: Calculus AB - AP

Calculus C/Multivariate Calculus continues concepts studied in Calculus AB. Topics include hyperbolic functions, sequences and series, parametric and vector-value functions, partial derivatives, improper integrals, directional derivatives, multiple integration, and applications. Optional topics include Green's Theorem, Stokes' Theorem, and the Divergence Theorem. This course is designed to meet the rigor and calculator requirements of the Advanced Placement examination, BC Level. It is recommended that students in this course take the AP Exam when it is offered in May. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

Mathematics

MA-710-1♥★

Linear Algebra - G/T

Grades 11, 12

1 credit

Prerequisite: Calculus AB - AP

Students in this course will develop skills in the basic concepts of linear algebra. These skills will cover areas such as vector spaces, systems of linear equations and matrices, determinants, similar matrices, diagonalizations, linear transformations, eigenvalues and eigenvectors, inner product spaces, quadratic forms, and complex vector spaces. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-723-1♥★

Differential Equations - G/T

Grades 11, 12

1 credit

Corequisite: Calculus C/Multivariate Calculus - AP

The course content includes a study of standard types of elementary differential equations, linear equations, systems of linear equations, series solutions, numerical methods, stability, elementary partial differential equations, boundary value problems, applications, and other selected topics. This course serves as an eligible transition mathematics course for students in grade 12 who have not achieved College and Career Readiness by the end of the 11th grade.

MA-999-1

Laboratory Assistant–Mathematics

Grades 11, 12

1 elective credit

Prerequisite: Approval of the mathematics instructional team leader

Working under the direction of the teacher, students gain work experience in the paraprofessional aspects of teaching in the developmental mathematics classes. Student assistants will distribute, collect, and store materials of instruction, provide routine assistance to students, and provide occasional tutorial assistance to students under the guidance of the teacher. Only one elective credit can be earned as a student assistant; credit may be awarded only after the 20th required graduation credit has been recorded.

CT-475-1♥★■

Computer Science A - AP [AP Computer Science]

Grades 10, 11, 12

1 credit

Prerequisite: Principles of Java Programming G/T, Computer Science Principles or Instructor Approval

Computer Science A - AP is a fast-paced advanced level course that extends the study of the fundamental principles and technology of object-oriented programming using the Java language. Topics include classes, objects, data types, variables, Boolean expressions, methods, looping, input, and output. Advanced topics will include searching, sorting, GUI components and event handling. It is recommended that students in this course take the AP Exam when it is offered in May. This course may be used as one of the four mathematics courses that satisfies graduation requirements, as well as the mathematics every year in high school requirement. However, in accordance with the University System of MD requirements, this course should not serve as the final high school mathematics course. Students taking this course in grade 12 should also enroll in another mathematics course.

The digital option of this course does not satisfy the Technology Education graduation requirement.

Media

The study of television production provides students with the theoretical background and hands-on experience necessary to produce television broadcasts and videos for instructional purposes. Lectures and student productions are interwoven to produce a comprehensive understanding of the television medium. Students will work individually and in small groups as they plan, design, and produce video programs that are consistent with the basic principles of instructional design and which demonstrate an understanding of the concepts of video production.

LM-801-1

Video Production

Grades 11, 12

1 credit

In this course, students receive instruction and experience in various technical and artistic aspects of video production. Topics covered include principles of communications, marketing and advertising, storytelling, social and personal branding, and broadcast news. Students will learn about and have hands-on experience with camera operation, lighting, storyboarding, script writing, graphic design, audio mixing, technical direction, and editing. Students will create and direct their own productions based on class assignments. Enrollment is limited and based on permission of the instructor.

LM-811-1

Video Production G/T

Grades 11, 12

1 credit

In this course, students receive instruction and experience in various technical and artistic aspects of video production. Students will research and apply various film and video influences and techniques, implications of intellectual property, and analyze the ways in which social media impacts traditional ways of consuming media. Topics covered include principles of communications, marketing and advertising, storytelling, social and personal branding, and broadcast news. Students will learn about and have hands-on experience with camera operation, lighting, storyboarding, script writing, graphic design, audio mixing, technical direction, and editing. Students will create and direct their own productions based on research and class assignments. Enrollment is limited and based on permission of the instructor.

LM-999-1

Laboratory Assistant - Media

Grades 11, 12

1 elective credit

Under the direction of the media specialist, students gain experience in working in a high school media center. Students will collect and distribute materials, operate equipment, assist students, process materials, perform clerical duties, and create audiovisual productions. Students must be able to work independently. Enrollment is limited and based on permission of the instructor. Only one elective credit can be earned as a student assistant; credit may only be awarded after the 20th required graduation credit has been recorded.

Physical Education

Physical Education provides rigorous instruction for all learners to have the knowledge, skills, and confidence to live a physically active and healthy lifestyle. Students in Grades 9-12 will receive one half credit of Physical Education instruction to meet graduation requirements. In addition, the Howard County Public School System will offer a variety of Physical Education electives that will provide students opportunities to be active in an inspiring and engaging environment.

PE-900-8

Lifetime Fitness 9 (required for graduation)

Grade 9 **1/2 credit**

This course is designed to help students develop physical literacy through the application of health and skill-related concepts of fitness while engaging in lifelong physical activities. Students will explore physical literacy concepts through the cognitive, affective, and psychomotor domains. Students set short- and long-term fitness goals based on physiological assessments. Students will use movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in a variety of selected activities. This course should be taken sequentially with Health Education in Grade 9.

PE-911-8

PE-911-1

Aerobic Conditioning and Weight Training I

Grades 10, 11, 12 **1/2-1 credit**

Prerequisite: Lifetime Fitness

This course introduces students to aerobic conditioning and weight training concepts such as benefits of proper diet along with exercise, target heart rate, body composition, overload, progression, and specificity. Students will participate in aerobic dance, step aerobics, jump rope activities, and use cardio respiratory exercising machines. Students will be able to describe how the cardiovascular system functions while exercising in and out of their target heart rate zone. Students will experience gains in muscular endurance through circuit and pyramid weight training. Students may take this course more than once.

PE-921-8

PE-921-1

Aerobic Conditioning and Weight Training II

Grades 10,11, 12 **1/2-1 credit**

Prerequisite: Aerobic Conditioning and Weight Training I or Strength and Conditioning I

This course reinforces and expands on the concepts learned in Aerobic Conditioning and Weight Training I. Students will be able to compare and contrast various types of aerobic conditioning and weight training programs and understand their application. Students will use their knowledge of basic exercise physiology to design a personalized circuit weight training program. Students may take this course more than once.

PE-930-8

PE-930-1

Specialty Sports

Grades 10, 11, 12

1/2-1 credit

Prerequisite: Lifetime Fitness

Students in Specialty Sports will demonstrate competency and/or refine activity specific movement skills in two or more lifetime activities (outdoor pursuits, individual-performance activities, invasion games, net/wall games, or target games). Students from beginning levels through advanced levels will develop an in-depth knowledge of technical and tactical strategies, coaching techniques, officiating procedures, and progressive skill development. Individual schools will select the sport activity that best meets the needs of their student population. Students may take this course more than once.

PE-940-8

PE-940-1

Sport for Life

Grades: 10, 11, 12

1/2-1 credit

Prerequisite: Lifetime Fitness

This course will provide students with the knowledge, confidence, and skills to enjoy participating in outdoor pursuits, individual performance activities, invasion games, net/wall games, target games, and lifetime activities. Students will learn lifelong physical activity skills through quality participation and social interaction. Instruction is provided to students at all skill levels. Individual schools will select the lifetime physical activities that meet the needs of their student population. Students may take this course more than once.

Physical Education

PE-951-8

PE-951-1

Strength and Conditioning I

Grades 10, 11, 12

1/2-1 credit

Prerequisite: Lifetime Fitness

This course introduces students to strength training and conditioning principles. Students will develop physical literacy through a variety of movement skills. Students obtain a working knowledge of anatomy, physical fitness concepts, nutrition, and principles of strength training. Students will develop a personal strength training and conditioning program. This process will include fitness data collection, goal setting, selection of appropriate activities, application of training principles and reflection on program. Students will explore cardiorespiratory exercises, with machines, to determine target heart rates. Emphasis will be placed on students demonstrating proper lifting technique and appropriate use of the fitness room. Students will understand that strength training and conditioning provide opportunities for enjoyment and social interactions for a lifetime. Students may take this course more than once.

PE-961-8

PE-961-1

Strength and Conditioning II

Grades 10, 11, 12

1/2-1 credit

Prerequisite: Strength and Conditioning I or Aerobic Conditioning and Weight Training I

This course reinforces the concepts taught in Strength and Conditioning I to expand upon student's cognitive knowledge of the fitness room. Students will be able to identify all forms of weight training, muscle groups, and muscle articulation. Students will determine body composition and discuss daily caloric intake while in a strength and conditioning program. Building on their knowledge of nutrition and cardiorespiratory fitness, students will be required to design a nutritional and cardiorespiratory fitness plan. Students may take this course more than once.

PE-971-8

PE-971-1

Strength and Conditioning III

Grades 11, 12

1/2-1 credit

Prerequisite: Strength and Conditioning II or Aerobic Conditioning and Weight Training II

This course reinforces the concepts taught in Strength and Conditioning II to expand upon student's knowledge of exercise physiology and kinesiology. Students in this course will engage in rigorous strength and conditioning activities. Students will develop an in-depth personalized fitness and weight training program. Students may take this course more than once.

PE-981-8

PE-981-1

Unified Physical Education and Leadership

Grades 10, 11, 12

1/2-1 credit

Prerequisite: Lifetime Fitness

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.

Reading

The high school reading program is supported by the collaborative efforts of English, reading, special education, and ESOL staff members to ensure the success of students as they advance toward proficiency in reading.

LA-900-1

Reading

Grades 9, 10, 11, 12

1 credit

This course is designed to provide reading instruction to students who need to continue or begin a specialized reading intervention that is not available in the Strategic Reading course to address their needs in decoding and comprehension. The course incorporates a multi-sensory approach and uses reading programs such as Wilson or Project Read to meet the needs of students. This course is available at all the high schools and is open to students with or without IEPs.

LA-905-1 - Strategic Reading I

LA-910-1 - Strategic Reading II

Strategic Reading

Grades 9, 10, 11, 12

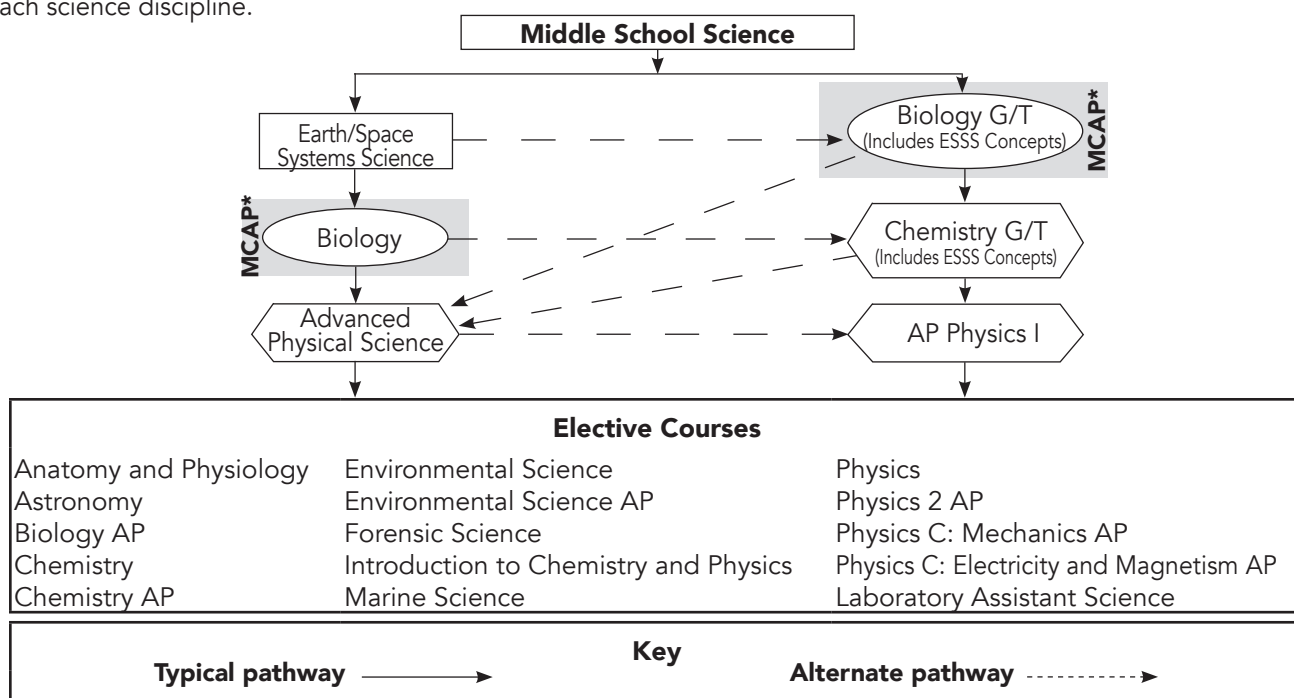
1 credit

Students who are marked Below Level in reading and who are two or more years below grade level in reading would be eligible for enrollment in this program. The high school reading specialist and special educator or ESOL teacher may co-teach the course. Students are provided with explicit reading instructional support in the areas of vocabulary, fluency, and comprehension related to all content areas. Students will be provided reading instruction in phonemic awareness and phonics, as needed. Students are taught in a small group setting using research-based instructional strategies. The goal of the program is to help students become functional readers across all content areas and move toward reading proficiency. Students may continue the program for a second year with the recommendation of the reading specialist.

Science

The high school science program is designed to develop scientific literacy for all students so they may use scientific information and thinking to make decisions in life. The program also provides a firm foundation for students who wish to pursue science or engineering as a career choice. The science curriculum is aligned to state standards that emphasize the practices of science along with the ideas of science. The learning environment in science classes promotes logical thinking, honesty, and curiosity. Disciplinary literacy is emphasized throughout the program; environmental literacy is integrated throughout the core science courses. Each science course deeply integrates laboratory experiences for students.

For high school graduation, each student must earn a minimum of three credits in science courses that are aligned to the Maryland Next Generation Science Standards. In selecting courses to meet the three-credit requirement, students should seek a broad array of learning experiences that include learning from each of the major disciplines of science (Earth/Space, Life, and Physical science). The core science courses and some recommended pathways for completing these courses are shown in the diagram below. The solid arrows represent typical pathways; the dashed arrows illustrate alternative pathways. A variety of course levels, including Advanced Placement, are offered within each science discipline.



In addition to required coursework, students must fulfill state assessment requirements in science at the high school level.

* The Life Science MCAP is a replacement for the previous high school Maryland Integrated Science Assessment (MISA). MISA scores from 2020-2021 or 2021-2022 also fulfill the requirement.

SC-400-1★■

Earth and Space Systems Science

Grades 9, 10

1 credit

In this course, students use the Science and Engineering Practices and Crosscutting Concepts of Science to build understanding of: the universe and Earth's place in it (stars, planets, and Earth's history); the dynamic and interrelated systems of the Earth (Earth materials, plate tectonics and other large scale system interactions, water and Earth's surface processes, weather, and

climate), and the interactions between Earth's surface processes and human activities (natural resources, natural hazards, human impact on Earth systems, and global climate change). Engineering design is incorporated as students consider technological solutions to real-world problems. *This course supports environmental literacy and features learning that supports the discipline of Earth/Space Science.*

Science

SC-500-1●★■

Biology

Grades 10, 11

1 credit

In this course, students use the Science and Engineering Practices and Crosscutting Concepts of Science to build understanding of: how organisms live and grow (structure and function, growth and development of organisms, and organization for matter and energy flow in organisms); how and why organisms interact with their environment and the effects of these interactions (interdependent relationships in ecosystems, cycles of matter and energy transfer in ecosystems, ecosystem dynamics, functioning, and resilience, and social interactions and group behavior); how characteristics of one generation are passed to the next and how individuals of the same species and even siblings can have different characteristics (inheritance of traits and variation of traits), and what evidence shows that different species are related (evidence of common ancestry and diversity, natural selection, adaptation, and biodiversity and humans). Engineering design is incorporated as students consider technological solutions to real-world problems. This course supports environmental literacy and features learning that supports the discipline of Life Science.

Note: Animals may be dissected in this course. Alternatives to dissection are available.

SC-515-1♥●★

Biology – G/T

Grades 9, 10

1 credit

In this course, students use the Science and Engineering Practices and Crosscutting Concepts of Science to build understanding of important life science and Earth systems science including: how organisms live and grow (structure and function, growth and development of organisms, and organization for matter and energy flow in organisms); how and why organisms interact with their environment and the effects of these interactions (interdependent relationships in ecosystems, cycles of matter and energy transfer in ecosystems, ecosystem dynamics, functioning, and resilience, and social interactions and group behavior); how characteristics of one generation are passed to the next and how individuals of the same species and even siblings can have different characteristics (inheritance of traits and variation of traits); what evidence shows that different species are related (evidence of common ancestry and diversity, natural selection, adaptation, and biodiversity and humans); the universe and Earth's place in it (Earth's history including Plate Tectonics); the dynamic and interrelated systems of the Earth (water

and Earth's surface processes), and the interactions between Earth's surface processes and human activities (natural resources, natural hazards, human impact on Earth systems, and global climate change). Engineering design is incorporated as students consider technological solutions to real-world problems. *This course supports environmental literacy and features learning that supports the disciplines of Earth/Space Science and Life Science.*

Note: Animals may be dissected in this course. Alternatives to dissection are available.

SC-901-1♥★■

Biology - AP

Grades 11, 12

1 credit

This course builds on the foundations of Biology and is designed to be the equivalent of a college-level introductory biology course. Students engage in the practices of science and engineering to construct their understanding of the process of evolution and its relationship to the diversity and unity of life; the use of free energy by biological systems to grow, reproduce, and maintain homeostasis; the storage, retrieval, transmission, and response of living systems to information essential to life processes, and the interaction of biological systems. Active and extensive engagement in laboratory work including the design of experiments is fundamental to the course. It is recommended that students in this course take the AP Exam when it is offered in May. Completion of Biology or Biology G/T and Advanced Physical Science or Chemistry G/T is recommended. *This course features learning that supports the discipline of Life Science.*

Note: Animals may be dissected in this course. Alternatives to dissection are available.

SC-600-1★

Chemistry

Grades 10, 11, 12

1 credit

This course includes the study of the periodic table, bonding, gases, solutions, organic molecules, and acids and bases. Students will engage in the practices of science and engineering to construct an understanding of the characteristics and quantitative relationships associated with matter. Technology is used extensively to collect and analyze data. Algebraic skills will be applied to solve problems. Principles of chemistry as they relate to our everyday lives will be emphasized.

Science

SC-615-1♥★

Chemistry - G/T

Grades 10, 11

1 credit

In this course, students use the Science and Engineering Practices and Crosscutting Concepts of Science to build understanding of important chemical and Earth systems concepts including: structure and properties of matter (atomic structure, periodic table, molecular structure, and interactions of matter); nuclear processes; chemical reactions (chemical kinetics, energetics, and equilibrium); energy conservation, conversion, and transfer; wave properties including electromagnetic radiation, information technologies, and instrumentation; the chemical and physical properties of water; the role and cycling of carbon among Earth's systems; Earth's materials; interactions between Earth's surface processes and human activities including natural resources, human impact on Earth systems, and global climate change; the universe and its stars (element formation, nuclear fusion, atomic spectra), and the dynamic and interrelated systems of the Earth (plate tectonics and other large scale system interactions). Engineering design is incorporated as students consider technological solutions to real-world problems. *This course supports environmental literacy and features learning that supports the disciplines of Earth/Space Science and Physical Science.*

SC-903-1♥★■

Chemistry - AP

Grades 11, 12

1 credit

This course builds on the foundations of Chemistry and is designed to be the equivalent of a college-level introductory chemistry course. Students engage in the practices of science and engineering to construct their understanding of the structures and properties of matter, chemical equilibrium, chemical kinetics, and thermodynamics. Significant laboratory work is integral to the learning experience and will emphasize experimental design, detailed observation, data collection, and data analysis including the application of statistics. It is recommended that students in this course take the AP Chemistry Exam when it is offered in May. College Board data show that students who complete a first course in Chemistry prior to taking AP Chemistry tend to achieve higher on the AP Examination. Thus, it is recommended that students successfully complete Advanced Physical Science or Chemistry G/T before enrolling in AP Chemistry. Additionally, advanced algebraic applications are a regular part of AP Chemistry; thus it is recommended that students complete Algebra II prior to enrolling in AP Chemistry. *This course features learning that supports the discipline of Physical Science.*

SC-660-1★

Advanced Physical Science

Grades 10, 11,12

1 credit

In this course, students use the Science and Engineering Practices and Crosscutting Concepts of Science to build understanding of important physical science concepts including: structure and properties of matter (atomic structure, periodic table, molecular structure and interactions of matter); nuclear processes; chemical reactions (chemical kinetics, energetics, and equilibrium); motion and stability; forces and interactions (mechanics, electrostatics, gravitation, momentum); energy (transfer and conservation), and waves and their applications in technologies for information transfer (wave properties, electromagnetic radiation, and information technologies and instrumentation). Engineering design is incorporated as students consider technological solutions to real-world problems. *This course features learning that supports the discipline of Physical Science.*

SC-801-1★

Anatomy and Physiology

Grades 11, 12

1 credit

This course builds on the foundations of the life sciences and is designed to help students understand the anatomic and physiological basis of life. The course covers cytology, histology, and the human body systems. Students will use the Science and Engineering Practices to construct understanding of the interdependence of structure and function in biological systems. Students will be expected to integrate relevant information and acquired skills in the exploration of careers in the medical sciences.

Note: Animals may be dissected in the course.

Alternatives to dissection are available.

SC-805-1★

Astronomy

Grades 11, 12

1 credit

This course builds on the foundations of the earth sciences. Students will use the Science and Engineering Practices to construct understanding of the historical development of astronomic models and the contributions of the early astronomers; the characteristics of light; the solar system; constellations; stellar compositions, energy sources, and life cycles; and the theories related to the origin of the solar system and the universe. Applications of a variety of astronomic instruments will support descriptive and experimental laboratory experiences. Detailed observation, data recording, and data interpretation including statistical analysis will be emphasized.

Science

SC-810-1★

Environmental Science

Grade 12

1 credit

This Maryland Next Generation Science Standard (NGSS) aligned course builds on the foundations of the earth, life, and physical sciences. It is designed for students to experience the interdisciplinary nature of environmental science. Students will use the Science and Engineering Practices to construct an understanding of the interdependence of organisms, populations, and natural resources; renewable and nonrenewable energy resources, and humans' impact on the environment. Students will participate in frequent descriptive and field investigations, service projects, and research related to environmental law. Students will also have the opportunity to explore environmental careers. This course features learning that supports the disciplines of Earth/Space Science, Life Science, and Physical Science. **Note: Animals may be dissected in this course. Alternatives to dissection are available.**

SC-905-1♥★■

Environmental Science - AP

Grades 11, 12

1 credit

This course builds on the foundations of the earth, life, and physical sciences and is designed to be the equivalent of a college-level introductory environmental science course. Students will engage in the Science and Engineering Practices to construct understanding of the interrelationships among elements of the natural world, environmental problems, and the relative risks associated with them. Descriptive laboratory field investigations will emphasize detailed observation, data recording, data interpretation, and statistical analysis. This course features learning that supports the disciplines of Earth/Space Science, Life Science, and Physical Science. It is recommended that students in this course take the AP Exam when it is offered in May. **Note: Animals may be dissected in this course. Alternatives to dissection are available.**

SC-815-1★

Forensic Science

Grades 11,12

1 credit

This course builds on the foundations of the earth, life, and physical sciences and is designed to help students understand the principles of Forensic Science. Students will use the Science and Engineering Practices to construct understanding of forensic methodologies, the identification of human evidence, and the importance of proper collection and handling of specimens to ensure the integrity of evidence collected at crime scenes. Students will regularly engage in laboratory investigations where an interdisciplinary approach incorporates principles of chemistry, biology, physics, geology, and various medical sciences. **Note: Animals may be dissected in this course. Alternatives to dissection are available.**

SC-825-1★

Marine Science

Grades 11, 12

1 credit

This course builds on the foundations of the earth, life, and physical sciences and is designed to help students understand oceanography and marine biology. The course includes the history and methodology of marine science, oceanography, marine biology, and the physical and human factors that influence marine ecology. Students will use the Science and Engineering Practices to construct understanding of the adaptations in marine life organisms, characteristics of the oceans, and the interactions and relationships within marine ecosystems. **Note: Animals may be dissected in this course. Alternatives to dissection are available.**

SC-655-1★■

Physics

Grades 11,12

1 credit

This course develops student understanding of forces, motion, and gravity; energy and momentum; electricity and magnetism, and waves. Students will engage in the practices of science and engineering to construct their understanding of the conceptual and quantitative relationships associated with matter and energy. Technology will be used extensively to collect and analyze data. Students will apply concepts from Algebra and Geometry to solve problems. Principles of physics as they relate to our everyday lives will be emphasized.

Science

SC-907-1♥★

Physics 1 - AP

Grades 11, 12

1 credit

In this course, students use the practices of science and the Big Questions of Physics to understand forces, motion, gravity, energy and momentum, electrostatics and electrical circuits, and waves and sound. Engineering design is incorporated as students consider technological solutions to real-world problems. This course is designed to be the equivalent of an introductory college-level, algebra-based physics course. Extensive laboratory experiences are integral to the course and emphasize planning and carrying out investigations along with analyzing and interpreting data. It is recommended that students in this course take the AP Physics 1 exam when it is offered in May. This is a quantitatively rigorous course, thus completion of Algebra II is recommended. *This course features learning that supports the discipline of Physical Science.*

SC-909-1♥★

Physics 2 - AP

Grades 11, 12

1 credit

This course builds on the foundations of physics to establish student understanding in thermodynamics, fluid statics and dynamics, electrostatics and electric circuits, magnetism and electromagnetic induction, optics, and modern physics. It is designed to be the equivalent of a college-level, algebra-based physics course. Students will engage in the practices of science and engineering to construct an understanding of the conceptual and quantitative relationships within physics. Extensive laboratory experiences are integral to the course and emphasize planning and carrying out investigations along with analyzing and interpreting data. It is recommended that students in this course take the AP exam when it is offered in May. This course is intended to build on previous physics learning, so completion of either Physics 1-AP, Physics G/T, or Physics is recommended. This is a quantitatively rigorous course. Thus, completion of Algebra II is recommended. *This course features learning that supports the discipline of Physical Science.*

SC-911-1♥★

Physics C: Mechanics - AP

Grades 11, 12

1 credit

This course builds on the foundation of Physics and is designed to be the equivalent of a college-level, calculus-based introductory physics course for physics and/or engineering majors. Students will engage in the practices of science and engineering to construct a deep understanding of Newtonian mechanics using algebra, trigonometry, and calculus. Extensive laboratory experiences are integral to the course and emphasize detailed observation, data recording, data interpretation, and statistical analysis. It is recommended that students in this course take the AP Exam when it is offered in May. Completion of or concurrent enrollment in Calculus is recommended. *This course features learning that supports the discipline of Physical Science.*

SC-913-1♥★

Physics C: Electricity and Magnetism - AP

Grades 11, 12

1 credit

Prerequisites: Completion of AP Physics C: Mechanics.

This course builds on the foundations of Physics and is designed to be the equivalent of a college-level introductory physics course for physics and/or engineering majors. Students will engage in the practices of science and engineering to construct an understanding of electricity and magnetism using algebra, trigonometry, and calculus. Extensive laboratory experiences are integral to the course and emphasize detailed observation, data recording, data interpretation, and statistical analysis. It is recommended that students in this course take the AP Exam when it is offered in May. Completion of or concurrent enrollment in Calculus is recommended. *This course features learning that supports the discipline of Physical Science.*

SC-999-1

Laboratory Assistant - Science

Grades 11, 12

1 elective credit

Prerequisites: Completion of three core science credits; teacher recommendation

This course trains students in generalized laboratory techniques and safety procedures. The course emphasizes practicality and is designed to develop individual facility and dexterity while performing common laboratory practices. Students must be able to work independently. Only one assistant credit can be applied toward graduation. Only one elective credit can be earned as a student assistant, and credit may only be awarded after the 20th required graduation credit has been recorded.

Social Studies

The high school social studies program is designed to integrate knowledge and skills from history and the social sciences into a comprehensive instructional sequence. The overall goal is to prepare students for the responsibilities of citizenship. The content includes knowledge of democratic government, the dignity and self-worth of the individual, and equality of opportunity. The curriculum reinforces specific social studies skills introduced at the elementary and middle school years. Among these are geographic reasoning skills, social science research skills, critical thinking skills, historical reading and thinking skills, and both individual and group problem solving skills.

At the high school level, each student must earn a minimum of three credits in social studies (one credit in US History, one credit in American Government, and one credit in World History). In addition to required courses, students may choose electives that focus on history, global studies, the social science disciplines, and related behavioral sciences.

SPECIAL NOTE: Advanced Placement Government and Politics, [AP United States Government and Politics], Advanced Placement World History: Modern, and Advanced Placement United States History may be substituted for the American Government, World History, or United States History graduation requirement. Advanced Placement Government and Politics, Advanced Placement World History, and Advanced Placement United States History may be taken as electives beyond the American Government, World History, or United States History graduation requirements.

Social Studies Course Sequence

9th Grade	10th Grade	11th Grade	12th Grade
U.S. History	American Government	Modern World History	Social Studies Elective(s)
U.S. History (H)	American Government (H)	Modern World History (H)	Social Studies Elective(s)
U.S. History (G/T)	American Government (AP)	World History: Modern (AP)	Social Studies Elective(s)

SO-401-1★■

United States History

Grades 9, 10, 11, 12

1 credit

This course presents a survey of United States history from 1877 to the present. Students will learn major concepts and themes in United States history, with a strong emphasis on the reading and interpretation of primary and secondary source documents, and on the application of knowledge through argument and explanatory writing using multiple sources. Students will be exposed to many seminal documents in American history, and will be expected to closely read and analyze complex text. Students will learn skills and content that will help prepare them for future course work and assessments in secondary social studies. This course fulfills the United States history graduation requirement.

SO-402-1♥★

United States History – Honors

Grades 9, 10, 11, 12

1 credit

This course presents a survey of United States history from 1877 to the present. Students will learn major concepts and themes in United States history, with a strong emphasis on the reading and interpretation of primary and secondary source documents, and on the application of knowledge through argument and explanatory writing using multiple sources. Students will be exposed to many seminal documents in American history, and will be expected to closely read and analyze complex text. Honors is an enriched course with more challenging expectations than United States History. Students will complete at least one extended historical research investigation. This course requires students to have a commitment to academic pursuits, while demonstrating self-motivation and independence. Students will learn skills and content that will help prepare them for future course work and assessments in secondary social studies. The recommendation of a student's current social studies teacher and consistently high achievement in previous social studies course work is desirable. This course fulfills the United States history graduation requirement.

Social Studies

SO-403-1♥★

United States History – G/T

Grade 9

1 credit

This course presents a survey of United States history from 1877 to the present. Students will learn major concepts and themes in United States history, with a strong emphasis on the reading and interpretation of primary and secondary source documents, and on the application of knowledge through argument and explanatory writing. Students will be exposed to many seminal documents in American history, and will be expected to closely read and analyze complex text. United States History G/T is an enriched course with more challenging expectations than the honors course, including a historical research paper or participation in National History Day®. This course requires students to have a commitment to academic pursuits, while demonstrating self-motivation and independence. Students will learn skills and content that will help prepare them for future course work and assessments in secondary social studies. The recommendation of a student's current social studies teacher and consistently high achievement in previous social studies course work are desirable. This course fulfills the United States history graduation requirement.

SO-615-1♥★■

United States History – AP

Grades 11, 12

1 credit

This course examines United States history through a chronological approach that emphasizes the major themes in the nation's past and the skills of historical thinking. Students are expected to complete at least one major written historical investigation and to participate in several seminar meetings. This course may be taken as an elective or as the United States History graduation requirement. Students electing this course may be given optional summer or pre-course readings. It is recommended that students in this course take the AP Exam when it is offered in May.

SO-501-1★●■

American Government

Grades 10, 11, 12

1 credit

This course presents a comprehensive study of national, state, and local government. Additional topics of study include law, economics, financial literacy, and current issues. Students will learn and apply content and skills through reading complex primary and secondary source text for comprehension and interpretation, written and oral expression, study skills, problem solving, and critical thinking skills. Students will be expected to closely read and analyze many seminal documents in American history, important Supreme Court cases, laws and statutes, graphs and charts, and news articles and political cartoons. Students will learn skills and content that will help prepare them for future course work and assessments in secondary social studies. This course is recommended for students who have demonstrated a need for skill improvement as indicated by previous social studies coursework. This course prepares students for the High School Assessment in American Government and fulfills the government graduation requirement.

SO-502-1♥★●

American Government – Honors

Grades 10, 11, 12

1 credit

This course presents a comprehensive study of national, state, and local government. Additional topics of study include law, economics, financial literacy, and current issues. Students will learn and apply content and skills through reading complex primary and secondary source text for comprehension and interpretation, written and oral expression, study skills, problem solving, and critical thinking skills. Students will be expected to closely read and analyze many seminal documents in American history, important Supreme Court cases, laws and statutes, graphs and charts, as well as news articles and political cartoons. American Government Honors is an enriched course with more challenging expectations than American Government. Students will complete at least one research investigation about a historical or current topic in government. This course requires students to have a commitment to academic pursuits, while demonstrating self-motivation and independence. Students will learn skills and content that will help prepare them for future course work and assessments in secondary social studies. The recommendation of a student's current social studies teacher and consistently high achievement in previous social studies course work are desirable. This course prepares students for the High School Assessment in American Government and fulfills the government graduation requirement.

Social Studies

SO-503-8

Government High School Assessment (HSA) Mastery

Grades 11, 12 **1/2 elective credit**

Government HSA Mastery is an elective course for students who have not passed the Government High School Assessment. The course fulfills the requirement for appropriate assistance before a student can retake the Government HSA. Instruction is offered in small group settings with a high degree of one-on-one interaction with the teacher. Students take the Government HSA during the administration that is closest to the end of the course.

SO-504-1♥★●■

Government and Politics – AP [AP United States Government and Politics]

Grades 10, 11, 12 **1 credit**

This course covers politics and government in the United States. It prepares students for both the HSA and the AP exam. This course provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. This course meets the American Government graduation requirement. It is recommended that students in this course take the AP Exam in May.

SO-600-1★■

Modern World History

Grades 11, 12 **1 credit**

This course is designed to survey the history of the human experience from the late Middle Ages to the present. Students will learn major events, concepts, and themes from the western and non-western traditions. Strong emphasis is placed on the reading and interpretation of primary and secondary source documents, maps, and data, and on the application of knowledge through argument and explanatory writing using multiple sources. Students will be exposed to many seminal documents in world history, and will be expected to closely read and analyze complex text. Students will learn skills and content that will help prepare them for future course work in secondary social studies. This course fulfills the World History graduation requirement.

SO-601-1♥★

Modern World History – Honors

Grades 11, 12 **1 credit**

This course is designed to survey the history of the human experience from the late Middle Ages to the present. Students will learn major events, concepts, and themes from the western and non-western traditions. Strong emphasis is placed on the reading and interpretation of primary and secondary source documents, maps, and data, and on the application of knowledge through argument and explanatory writing using multiple sources. Students will be exposed to many seminal documents in world history, and will be expected to closely read and analyze complex text. Modern World History Honors is an enriched course with more challenging expectations than Modern World History. Students will complete at least one extended historical research investigation. This course requires students to have a commitment to academic pursuits, while demonstrating self-motivation and independence. Students will learn skills and content that will help prepare them for future course work in secondary social studies. This course fulfills the World History graduation requirement.

SO-621-1♥★■

World History: Modern – AP

Grades 11, 12 **1 credit**

This course covers content from 1200 CE to present. It looks at world history chronologically, geographically, and thematically. For instance the course begins with a unit entitled The Global Tapestry that focuses on nation building around the world and then moves into a unit that focuses on networks of exchange and trade routes. The course also incorporates the development and assessment of historical thinking skills, research, and analysis. Students will be asked to read and evaluate lengthy and complex texts, visual sources, and to create and write extended historical arguments relying on relevant and reliable evidence. The course may be taken as an elective or to meet the world history graduation requirement. It is recommended that students in this course take the AP Exam in May.

Social Studies

SO-506-8★

African-American Studies

Grades 10, 11, 12

1/2 credit

This course is an in-depth study of the history of the African American experience. Topics include the origin of civilizations in Africa, the evolution of and resistance to slavery in the United States, the challenges confronted by African Americans after the Civil War, the Civil Rights and Black Power movements, the progress and problems faced by African Americans in the 20th and 21st centuries, and the contributions and achievements of African Americans and African American culture within the United States.

SO-507-8★

Ancient and Medieval History

Grades 10, 11, 12

1/2 credit

This course presents a survey of the human experience from 1000 BCE to 1350 CE. The course will focus on the major intellectual, social, political, historical, economic, and geographic themes from both the western and non-western traditions. Major units of study include classical civilizations expanding trade and cultures, and the Medieval Era. This course will NOT fulfill the World History graduation requirement.

SO-603-8★

Anthropology

Grades 10, 11, 12

1/2 credit

This course provides an opportunity for studying human culture. Cultural anthropology examines mankind's interaction with the environment and covers ancient culture, problems of cultural change, art, mythology, and language. Students also learn about archeology and archeological methods.

SO-617-8★

Asian Studies

Grades 10, 11, 12

1/2 credit

This interdisciplinary course is divided into three units, one that focuses on the history, literature, philosophy, art, and religions of China, Korea, Japan, Southeast Asia, and India. The second unit is focused on the experiences of people AAPI (Asian American Pacific Islander) descent in the United States. Unit 3 incorporates the knowledge from both of the previous units to evaluate events of the late 20th and early 21st century.

SO-604-1♥★

Comparative Government and Politics – AP

Grades 11, 12

1 credit

The instructional purpose of this course is to help students gain knowledge of the world's diverse political structures and practices, including the study of both specific countries (Great Britain, France, Russia, and China) and general concepts key to understanding relationships found in all national politics. Students electing this course may be given summer or pre-course readings. This course will NOT fulfill the American Government graduation requirement. It is recommended that students in this course take the AP Exam when it is offered in May.

SO-620-8

Economics

Grades 10, 11, 12

1/2 credit

Economics is a semester long course introducing basic economic principles and current economic issues with a focus on the American economy. Students will examine components of the American economy such as price, competition, business, and banking institutions. Students will also examine issues related to the economy through employment and labor issues, the role of the government in the economy, and selected topics on global economics.

SO-618-8★

Ethics in Contemporary Culture

Grades 11, 12

1/2 credit

This course provides an opportunity for students to apply guidelines and principles of ethics, cultural proficiency, and civil discourse to contemporary topics. Students will learn to utilize effective communication skills, empathy, and civility to explore a variety of topics in a culturally diverse society.

SO-605-1♥★

European History – AP

Grades 11, 12

1 credit

The instructional purpose of this course is the study of European civilization from the Renaissance period to present day. Students are expected to complete at least one major written historical investigation and to participate in several seminar meetings. Students electing this course may be given summer or pre-course readings. This course will NOT fulfill the World History graduation requirement. It is recommended that students in this course take the AP Exam when it is offered in May.

Social Studies

SO-607-1♥★■

Human Geography – AP

Grades 9, 10, 11, 12

1 credit

This course introduces students to the systematic study of the patterns and processes that have shaped human understanding of Earth's surface, and how it is used and altered. Students employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. It is recommended that students in this course take the AP Exam when it is offered in May.

SO-404-1♥★

Humanities I - G/T (Social Studies)

Grade 9

1 credit

Prerequisite: Teacher recommendation

Corequisite: Concurrent enrollment in Humanities I G/T (English)

Humanities I integrates the study of United States History or Modern World History with literature of the cultures and time periods. The course is structured around the United States History or World History curriculum and literature which illustrates the various time periods. Because students are concurrently enrolled in Humanities I G/T (English), they receive 2 credits, one for English and one for Social Studies (United States History or Modern World History).

SO-505-1♥●★

Humanities II/Government and Politics - AP (Social Studies) [AP Government and Politics]

Grade 10

1 credit

Prerequisites: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities II G/T (English)

This course integrates the study of Advanced Placement Government and Politics with literature that complements the study of government. Students receive credit for Advanced Placement Government and Politics and are recommended to take the AP Exam. Connections between the literature read in this course and the major political concepts of the time are discussed. Because students are concurrently enrolled in Humanities II G/T (English), they receive 2 credits, one for English and one for Social Studies, (American Government). At the end of this course, students must take the High School Assessment for English 10.

SO-616-1♥★

Humanities III/World History - AP or United States History - AP (Social Studies)

[AP World History or AP United States History]

Grade 11

1 credit

Prerequisites: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities III G/T (English)

This course integrates the study of Advanced Placement World History or Advanced Placement U.S. History with American literature. Students receive credit for Advanced Placement World History or Advanced Placement U.S. History and are recommended to take the AP Exam. Students are also prepared for and are expected to complete a historical research paper and a literary research paper. Because students are concurrently enrolled in Humanities III G/T (English), they receive 2 credits, one for English and one for Social Studies (United States History or World History).

SO-700-1♥★

Humanities IV - G/T (Social Studies)

Grade 12

1 credit

Prerequisites: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in Humanities IV G/T (English)

Humanities IV integrates the study of twentieth century history and literature as well as current issues. To enhance the non-western component of the course, students are required to complete a research paper on an aspect of a developing country. Students in this class are recommended to take the Literature and Composition AP Exam. Because students are concurrently enrolled in Humanities IV G/T (English), they receive 2 credits, one for English and one elective credit for Social Studies.

Social Studies

SO-508-8★

Latin American Studies

Grades 10, 11, 12

1/2 credit

This Latin American Studies course focuses on the historic influences that have led to the evolution of modern Latin America as well as the Latin American and Latinx experience in the United States. Unit 1 identifies the geographic regions of Latin America and traces the social, political, economic, and international factors that have contributed to the development of this racially, ethnically, politically, and economically diverse part of the Western Hemisphere. Unit 2 focuses on US intervention in Latin America, and as both an intended and unintended consequence, the migration of Latin Americans to the United States and their experiences in the United States. Unit 3 incorporates the knowledge from both of the previous units to evaluate events of the late 20th and early 21st century.

SO-509-8★

Law and the Citizen

Grades 10, 11, 12

1/2 credit

This course is designed to enable students to explore issues related to law, justice, and the American legal system. The following topics are included in this course: introduction to the law and the legal system, criminal law, and the juvenile justice system, torts, consumer law, family law, housing law, and individual rights and liberties.

SO-608-1♥★

Microeconomics/Macroeconomics – AP

Grades 11, 12

1 credit

Students receive in-depth instruction in both microeconomics and macroeconomics. Major areas of study include economic concepts, product and factor markets, the role of government, management of economic performance, national income and price determination, and international economics and growth. Students electing this course may be given optional summer or pre-course readings provided by the instructor. It is recommended that students in this course take the Microeconomics and Macroeconomics AP Exams when it is offered in May.

SO-609-1★■

Microeconomics – AP

Grades 11, 12

1 credit

Students receive instruction in microeconomics in greater depth and complexity than the combined course listed above. Microeconomics is the study of economics as it relates to the behavior of individuals, families, and businesses. In addition to learning content required for the AP Exam in microeconomics, students may be expected to participate in academic competitions related to economics. Students electing this course may be given optional summer or pre-course readings provided by the instructor. It is recommended that students in this course take the AP Microeconomics Exam when it is offered in May.

SO-610-1★■

Macroeconomics – AP

Grades 11, 12

1 credit

Students receive instruction in macroeconomics in greater depth and complexity than the combined course. Macroeconomics is the study of economics as it relates to entire economic systems. In addition to learning content required for the AP Exam in microeconomics, students may be expected to participate in academic competitions related to economics. Students electing this course may be given optional summer or pre-course readings provided by the instructor. It is recommended that students in this course take the AP Macroeconomics Exam when it is offered in May.

SO-512-8★

Native American Studies

Grades 10, 11, 12

1/2 credit

This course is organized around the four themes of Native American Studies: Sovereignty, Survivance, Settler Colonialism, and Federal Policy. In Unit 1, students will participate in research on the themes and a wide variety of Native American Nations and Cultures. Unit 2 covers the history of Native American experiences from the Proclamation of 1763 through the 1970's, and asks students to apply the themes to events and eras. Unit 3 incorporates the knowledge from both of the previous units to evaluate events and movements of the late 20th and early 21st century.

Social Studies

SO-513-8★

Political Science

Grades 10, 11, 12

1/2 credit

This course provides for the study of politics and various political systems throughout the world, with special emphasis given to the United States political experience. This course will NOT fulfill the American Government graduation requirement.

SO-611-8★

Psychology

Grades 11, 12

1/2 credit

This course involves the systematic study of individual human behavior and experience. The purpose of this course is to introduce the student to the content, terminology, methodology, and application of the discipline. This survey course contains an introduction followed by four units based on the physiological, cognitive, behavioral, and affective domains of psychology. Topics include learning, intelligence, patterns of behavior, growth and development, interpersonal relationships, human sexuality, gender, and social issues.

SO-612-1♥★■

Psychology – AP

Grades 11, 12

1 credit

The instructional purpose of this course is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students explore the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students electing this course may be given optional summer or pre-course readings. It is recommended that students in this course take the AP Exam when it is offered in May.

SO-613-8★

Sociology

Grades 10, 11, 12

1/2 credit

This course examines human behavior in society and institutions, as well as the roles and relationships of individuals and groups. Topics of study include culture, societal norms, roles, socialization, social stratifications, group dynamics, and pertinent social problems.

SO-619-8★

Women's Studies

Grades 11, 12

1/2 credit

This course provides an opportunity for students to explore the women's movements in the United States through an interdisciplinary lens. Students will consider the foundation and history of the women's movement. Specific topics include socialization and gender stereotypes, sexuality, beauty ideals and media representation, the impact of political and economic systems, the international women's movement, and intersectionality.

SO-614-8★

World Religions

Grades 10, 11, 12

1/2 credit

This course allows students to develop a general knowledge of world religions with more than 3 million followers, collaboratively investigate the most common world religions in more depth, and create a compelling question about religion that is of interest to them. Students will conduct an investigation that employs multiple disciplinary tools to answer their question and communicate the results.

SO-999-1

Laboratory Assistant – Social Studies

Grades 11, 12

1 credit

Working under the direction of the teacher, student assistants help distribute, collect, and store the materials of instruction; type and duplicate materials designed by the teacher; provide routine assistance to students during the administration of exercises and tests; and provide occasional tutorial assistance to students under the guidance of the teacher. Only one elective credit can be earned as a student assistant. Credit may only be awarded after the 20th required graduation credit has been recorded. Students do not have access to student grades or personal data.

Government, Law, and Public Administration

Overview

The Government, Law, and Public Administration Program is designed for those students who have an interest in serving in government, political, and/or legal fields. The academy focuses on legislative, administrative, and judicial services to carry out government functions at the federal, state, and local levels. Students enroll in a suite of courses designed to prepare them for a future career in these areas, and then complete either a capstone project or participate in an internship with professionals in their chosen field of study. Students participating in the Government, Law, and Public Administration Academy will still need to complete world language or advanced technology requirements, as this is not a complete academy.

Capstone Projects

Students may complete a portfolio documenting their learning and growth, participate in an academic competition such as Mock Trial, Speech and Debate, Model United Nations, or Econ Challenge, or serve an internship with a professional. All students will need to document their experiences in the form of a portfolio or a research paper.

Internships

As seniors, Government, Law, and Public Administration Academy students have the opportunity to serve in year long internships with local or state government officials, law firms, defense agencies, and other programs that provide services or essential governmental functions. Students spend five hours per week working with their mentors in the field, and receive guidance, support, and supervision from their high school Gifted and Talented resource teacher.

College and Career Advantages

Completion of a portfolio, participation in academic competitions and/or internships, and the opportunity to take advanced level coursework in the social sciences provide students with excellent resume building experiences for college acceptance. Experiences such as these also allow students to see their potential for a future career in related fields. Examples of college and career pathways include government and politics, the legal profession, public administration, city and regional planning, or economics.

College Credit

Students may earn college credit through Advanced Placement classes in American Government, Comparative Government, Micro/Macro Economics, Modern World History, and Human Geography.

Scholarships

Please check with your Guidance Counselor or your potential colleges.

Weighted Courses

The aforementioned AP courses would qualify as weighted courses, as would G/T Intern/Mentor, Honors American Government, and Honors Modern World History.

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12
Algebra I or above	Geometry or above	Algebra II	Mathematics
Science	Science	Science	Elective
U.S. History	American Government or AP Government and Politics	Modern World History or AP World History	Speech (recommended)
Lifetime Fitness/Health I	Law and the Citizen	Leadership	AP Economics or Political Science
Elective	Fine Arts	AP Comparative Governments	AP Human Geography or elective
Elective	Tech. Ed Requirement	Health II/Elective	GT Intern/Mentor (for students doing internships)

*Students entering grade 9 in the 2021–22 school year and after will be required to have one health credit upon graduation based on revised COMAR regulations from the Maryland State Department of Education.

♥ Weighted Class

● High School Assessment Course

★ NCAA Approved Course

■ Digital Option

Special Education

Special education services in each Howard County high school are designed to provide instruction, related services, and support for students who have been determined to be eligible through the Individualized Education Program (IEP) process. An IEP is developed for each student with a disability by the IEP team and reflects special education and related services in accordance with least restrictive environment guidelines. All students must complete graduation requirements as described in this catalog in order to earn a Maryland high school diploma.

Resource Classes

These courses are options for students who are identified as being in need of special education services, are working towards a Maryland Certificate of Program Completion, and the IEP team has determined this to be the least restrictive environment for the student.

RE-400-0

Resource English

Grades 9, 10, 11, 12

0 credit

In this course, students with IEPs are working toward a Certificate of Completion and are working toward individualized reading and written language goals and objectives aligned with modified English curriculum and Alternative State Standards. Students take the English Language Arts Multistate Alternate Assessment (MSAA) in grade 11.

RE-500-0

Resource Social Studies

Grades 9, 10, 11, 12

0 credit

Students with IEPs who are seeking a Certificate of Completion learn modified curriculum in American Government, US History, and World History with a focus on application in activities related to daily living and employment.

RE-600-0

Resource Math

Grades 9, 10, 11, 12

0 credit

In this course students with IEPs are working toward a Certificate of Completion. Students work toward individualized goals and objectives aligned with modified mathematics curriculum. Students take the Multistate Mathematics Alternative Assessment in grade 11.

RE-700-0

Resource Science

Grades 9, 10, 11, 12

0 credit

Throughout this course students with IEPs who are seeking a Certificate of Completion learn modified science curriculum standards in earth and space systems, life, and physical science. Students in the 11th grade take the Alternate Maryland Integrated Science Assessment (Alt-MISA).

RE-900-0

Resource Tutorial

Grades 9, 10, 11, 12

0 credit

Students must have an IEP and are participating in the Multi State Alternative Assessments as determined by the IEP team. This course is designed to help students improve their organizational, self-advocacy, independent living, and employment skills. Students will engage in structured learning tasks aligned with their IEP goals/objectives in small group settings with a high degree of interaction by the instructor.

RE-811-0

Career and Community Exploration

Grades 9, 10, 11, 12

0 credit

The Enclave program is a hands-on work experience program in a community-based setting. Within a small group and under the direct supervision of a teacher, students are introduced to a variety of half-day training sites beginning in the third year or later of high school. Students engage in work and independent living activities aligned with their IEP goals related to transitioning into employment and independent living.

Seminar Classes

Students who are eligible may receive instructional services in the general education classroom or through a specialized program of study according to the student's Individualized Education Program (IEP) and least restrictive environment determinations.

Additional elective credit may be earned for students who require specialized instructional intervention in the areas of reading, written language, and mathematics to meet IEP goals and objectives. This can be delivered in a semester or year-long course as determined by the student's IEP team. These electives are taken in addition to required grade level English and mathematics courses.

RE-410-8 - Semester

RE-410-1 - Year

Integrated Reading and Writing

Grades 9, 10, 11, 12

1/2 - 1 elective credit

This course is for students with an IEP who require individualized and/or specialized instruction in reading and written language beyond the interventions offered in Reading and English Seminar courses. Recommendation for this additional need would be determined through the IEP team on an individual basis. This course would be taken in addition to the grade level English course.

Special Education

RE-620-8

RE-620-1

Principles of Mathematics

Grades 9, 10, 11, 12 **1/2 - 1 elective credit**

This course is for students with an IEP who require individualized and/or specialized instruction in mathematics beyond the interventions offered in Algebra I, Geometry, and Algebra II Seminar courses. Recommendation for this additional need would be determined through the IEP team on an individual basis. This course would be taken in addition to the grade level math course.

RE-310-1

Braille

Grades 9, 10, 11, 12 **1 credit**

This tutorial aligns with the IEP of a student who is blind or visually impaired. Instruction is provided in the reading and writing of Unified English Braille and the Nemeth Braille Code for Mathematics and Science Notation. Instruction in the following specialized Braille codes is provided as appropriate: foreign language, music, computer, and chemical codes. Additional areas of instruction include tactile graphics, textbook format, and the use of specialized technology to access and produce written work

RE-990-1

Peer Assistant/Tutor

Special Education: Grades 11,12 **1 elective credit**
(Fulfills Student Service Learning Requirement)

Prerequisites: Successful completion of all courses taken previous year; permission of Special Education Instructional Team Leader

This course is designed to provide experience for general education students in working with students with disabilities. Only one elective credit can be earned as a peer assistant. Credit may only be awarded after the 20th required graduation credit has been recorded.

Students have the option of earning a credit only or earning a credit AND up to 75 student service learning hours. If a student wishes to earn service learning hours using this option, pages 1 and 2 of an Individual Service Learning Project Proposal should be completed and submitted to the School Counseling Team Leader and Principal for approval. The student must prepare for additional projects, mediation or tutoring assignments beyond the duties of other peer assistants in order to be approved for service learning hours. Upon completion of the course, the student must complete the Service Learning Validation Form in order to be awarded the 75 service learning hours.

RE-900-8

RE-900-1

Tutorial

Grades 9, 10, 11, 12

Students must have an IEP or a 504 and are participating in PARCC/HSA assessed courses to meet Maryland graduation requirements. This course, by semester or over a full year, is designed to improve organization, test taking, and self-advocacy skills and is designated on the 504/IEP plan. Students will engage in structured learning tasks aligned with their IEP goals/objectives or 504 Plan in small group settings with a high degree of interaction by the instructor.

RE-800-8

RE-800-1

RE-800-2

RE-800-3

RE-800-4

Work Study

Grades 11, 12

The Work Study program is a supervised, hands-on work experience program in a community-based setting. Students are introduced to a variety of half-day training sites beginning in the third year or later of high school. Students engage in work activities aligned with their employment and independent living IEP goals related to transition. Work Study may be taken for elective credit. It may not be used in place of the Career Research and Development program choice.

1/2 credit

1 credit

1/2 credit

1 credit

2 credits

3 credits

4 credits

1/2-4 credits

World Languages

The study of world languages uses a proficiency-based approach, which focuses on what students can do with the language and to what degree they are able to function in the language. World language study enhances the integration of communication skills with higher order thinking skills and creativity. The study of culture is an integral part of the curriculum; it sets the stage for language use and heightens students' sensitivity to and appreciation for diverse groups of people, environments, and customs. Students also develop broader knowledge of and facility in their native languages and tend to increase their verbal performance. The study of world languages contributes to positive self-esteem, builds on individual strengths, and accommodates a variety of learning styles. Additional world language courses taken outside of HCPSS may be used for credit toward graduation requirements if course content has been approved by the Coordinator of World Language and prior approval to take the course has been given by the principal.

World Language Course Sequence

Grade Entering Program	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
7th Grade	Level I	Level II	Level III	Level IV	Level V	Level VI
8th Grade		Level I	Level II	Level III	Level IV	Level V
9th Grade			Level I	Level II	Level III	Level IV
10th Grade				Level I	Level II	Level III
11th Grade					Level I	Level II
12th Grade						Level I

AMERICAN SIGN LANGUAGE

WL-401-1★

American Sign Language I

Grades 9, 10, 11, 12

1 credit

This class is designed to introduce students to American Sign Language. Students will begin developing skills needed to communicate with deaf persons – such as fingerspelling, signed words, mime, and gestures. Students will have the opportunity to use the skills learned in class to communicate with deaf persons.

Note: Course may not meet all colleges' entrance requirements.

WL-501-1★

American Sign Language II

Grades 10, 11, 12

1 credit

Prerequisite: American Sign Language I

Students will continue to build skills learned in American Sign Language I. New vocabulary will be added as students learn to increase their speed of expressive and receptive signing. Films and fieldtrips will provide opportunities for students to learn about deaf people and their culture. **Note: Course may not meet all colleges' entrance requirements.**

WL-601-1★

American Sign Language III

Grades 11, 12

1 credit

Prerequisites: American Sign Language I and II

Students will further develop expressive and receptive skills. Areas of concentration include vocabulary building, grammatical structures, and conversational proficiency. While the primary focus of this course will be American Sign Language as a language, elements of Deaf culture and history will also be integrated through readings, lectures, projects, and guest speakers. **Note: Course may not meet all colleges' entrance requirements.**

CHINESE

WL-402-1★■

Chinese I

Grades 9, 10, 11, 12

1 credit

Chinese I introduces students to the Chinese language and culture with an overview of Chinese history, people, current affairs, politics, economics, science, technology, arts, and literature. Students explore pronunciation and common terms and may expect experiences in all four of the traditional language acquisition skills with an emphasis on listening and speaking. Chinese I highlights the evolution and Romanization of Chinese and a study of tone, an extremely important aspect of the Chinese language.

World Languages

WL-502-1★■

Chinese II

Grades 9, 10, 11, 12

1 credit

Prerequisite: Chinese I

This course continues the study of the Chinese language and culture, including Chinese history, people, current affairs, politics, economics, science, technology, arts, and literature. Students may expect language-learning experiences in all four of the traditional language acquisition skills. Study of the evolution and the Romanization of the Chinese language is also included. Tone, an extremely important aspect of the Chinese language, is an important aspect of study in this course.

WL-503-1♥★■

Chinese II – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Chinese I

Though the content is the same as Chinese II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in more depth. Students learn additional applications of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-602-1★■

Chinese III

Grades 9, 10, 11, 12

1 credit

Prerequisite: Chinese II

Chinese III reinforces basic communication skills and expands to include more sophisticated reading, writing and grammar. Prevailing vocabulary is introduced for conversational purposes. Reading skills are emphasized at this level, and grammatical structures are studied in more detail. Students continue to study Chinese culture through readings, lectures, discussions in the language and the use of media and technology.

WL-603-1♥★■

Chinese III – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Chinese II or Chinese II - Honors

Although the content is the same as Chinese III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in more depth. Students learn additional applications of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-701-1♥★

Chinese IV - Honors

Grades 10, 11, 12

1 credit

Prerequisite: Chinese III or Chinese III - Honors

Chinese IV - Honors continues to refine and expand communication skills with emphasis on oral, reading and writing proficiency. The study of culture emphasizes the history, literature and fine arts of the Chinese-speaking world. At the end of this course, students will be able to communicate in Chinese on basic social topics and current events.

WL-811-1♥

Chinese V - AP Chinese Language and Culture

Grades 11, 12

1 credit

Prerequisite: Chinese IV - Honors

The Chinese V class in Advanced Placement Chinese Language and Culture prepares students to demonstrate their level of Mandarin Chinese proficiency across the three communicative modes (Interpersonal, Interpretive, and Presentational) and the five goal areas (Communication, Cultures, Connections, Comparisons, and Communities). Its aim is to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills within a cultural frame of reference reflective of the richness of Chinese language and culture. It is recommended that students in this course take the AP Chinese Language and Culture Exam when it is offered in May.

World Languages

FRENCH

These course offerings provide a possible five-year sequence of the study of French. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—that reinforce the skills of listening, reading, speaking, and writing in French. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-404-1★■

French I

Grades 9, 10, 11, 12 **1 credit**

This course is an introduction to the French language and Francophone culture. In French I, students communicate on a variety of topics, such as exchanging greetings, identifying classroom objects, describing family members, telling time, describing weather conditions and seasons, locating places around town, and ordering foods in a café. Students explore the Francophone and examine the differences and similarities between Francophone and American cultures.

WL-504-1★■

French II

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: French I

This course emphasizes what students are able to do in the language. Students communicate regarding a variety of topics in the past, present and future. Students continue to study Francophone culture through reading, lectures, discussions, and the use of media and technology.

WL-505-1♥★

French II – Honors

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: French I

Although the content is the same as French II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth. Students learn additional applications of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-604-1★■

French III

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: French II

French III reinforces basic communication skills and expands to include more sophisticated writing and spontaneous speaking. Events are discussed in the present, past, and future tenses. Students continue to study the culture of the French speaking world through readings, lectures, discussions and the use of varied media and technology.

WL-605-1♥★

French III – Honors

Grades 9, 10, 11, 12 **1 credit**

Prerequisite: French II or French II - Honors

Although the content is the same as French III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth. Students learn additional applications of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-702-1♥★

French IV – Honors

Grades 10, 11, 12 **1 credit**

Prerequisite: French III or French III - Honors

French IV – Honors continues to refine and expand communication skills in the three modes: Interpretive (Listening and Reading), Interpersonal (Speaking and Writing), and Presentational (Speaking and Writing). There is a review of key language structures with an expansion to more advanced grammar. The course is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing proficiency in the language and exploration of French-speaking cultures.

World Languages

WL-802-1♥★■

French V – AP French Language and Culture

Grade 11, 12

1 credit

Prerequisite: French IV or French IV - Honors

The AP French Language and Culture course provides students with opportunities to demonstrate their proficiency at the advanced level in each of the three modes of communication (Interpersonal, Interpretive, and Presentational). The course strives to promote both fluency and accuracy in language use. The course engages students in an exploration of culture in both contemporary and historical contexts and is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing advanced proficiency and refining communication skills in the language. It is recommended that students in this course take the AP Exam when it is offered in May.

WL-901-1♥★

Intermediate Special Topics in French – Honors

Grades 11, 12

1 credit

Prerequisite: French III

Intermediate Special Topics in French uses a thematic approach to move students forward in their language across intermediate proficiency levels. In the course, students strengthen their skills within the three communicative modes (Interpretive, Interpersonal, and Presentational) and four skill areas (Reading, Writing, Speaking, and Listening) while deepening their understanding of target culture, products and perspectives through the use of authentic texts and real-world tasks. **Note: Course may not meet all colleges' entrance requirements.**

WL-902-1♥★

Advanced Special Topics in French – Honors

Grades 11, 12

1 credit

Prerequisite: French IV - Honors, Intermediate Special Topics in French

Advanced Special Topics in French uses a thematic approach to move students forward in their language proficiency toward intermediate high and advanced levels. In the course, students strengthen their skills within the three communicative modes (Interpretive, Interpersonal, and Presentational) and four skill areas (Reading, Writing, Speaking, and Listening) while deepening their understanding of target culture products and perspectives through the use of authentic texts and real-world tasks.

GERMAN

These course offerings provide a possible four-year sequence of the study of German. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—which reinforce the skills of listening, reading, speaking, and writing in German. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-406-1★■

German I

Grades 9, 10, 11, 12

1 credit

This course introduces students to the language and cultures of the German-speaking world. In German I, students communicate about various topics such as exchanging greetings, identifying classroom objects, describing family members, telling time, describing weather conditions and seasons, and identifying rooms in a house. Students explore the German-speaking world, focusing on the geography of Germany and neighboring countries. They also compare relevant aspects of the culture of the United States and Germany.

WL-506-1★■

German II

Grades 10, 11, 12

1 credit

Prerequisite: German I

This course emphasizes what students are able to do in the language. Students communicate on a variety of topics in the past, present and future. Students continue to study the German-speaking world through readings, lectures, discussions, and the use of media and technology.

WL-507-1♥★

German II – Honors

Grades 10, 11, 12

1 credit

Prerequisite: German I

Although the content is the same as German II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

World Languages

WL-606-1★

German III

Grades 11, 12

1 credit

Prerequisite: German II

German III reinforces communication skills and expands to include more sophisticated writing and spontaneous speaking. Events are discussed in the past, present and future tenses. Students continue to study the culture of the German-speaking world through readings, lectures, discussions, and the use of varied media and technology.

WL-607-1♥★

German III – Honors

Grades 11, 12

1 credit

Prerequisite: German II or German II - Honors

Although the content is the same as German III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-703-1♥★

German IV - Honors

Grade 12

1 credit

Prerequisite: German III or German III - Honors

German IV continues to refine and expand communication skills in the three modes: Interpretive (Listening and Reading), Interpersonal (Speaking and Writing), and Presentational (Speaking and Writing). There is a review of key language structures with an expansion to more advanced grammar. The course is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing proficiency in the language and exploration of German-speaking cultures.

WL-903-1♥★

Advanced Special Topics in German – Honors

Grade 12

1 credit

Prerequisite: German IV - Honors

Advanced Special Topics in German uses a thematic approach to move students forward in their language proficiency toward intermediate high and advanced levels. In the course, students strengthen their skills within the three communicative modes (Interpretive, Interpersonal, and Presentational) and four skill areas (Reading, Writing, Speaking, and Listening) while deepening their understanding of target culture products and perspectives through the use of authentic texts and real-world tasks.

WL-803-1♥★

German IV – AP German Language and Culture

Grade 12

1 credit

Prerequisite: German III or German III - Honors

The AP German Language and Culture course provides students with opportunities to demonstrate their proficiency at the advanced level in each of the three modes of communication (Interpersonal, Interpretive, and Presentational). The course strives to promote both fluency and accuracy in language use. The course engages students in an exploration of culture in both contemporary and historical contexts and is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing advanced proficiency and refining communication skills in the language. It is recommended that students in this course take the AP Exam when it is offered in May.

ITALIAN

These course offerings provide a possible four-year sequence of the study of Italian. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—which reinforce the skills of listening, reading, speaking, and writing in Italian. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-408-1★

Italian I

Grades 9, 10, 11, 12

1 credit

This course is an introduction to the Italian language and culture. In Italian I, students communicate on a variety of topics such as exchanging greetings, identifying classroom objects, describing family members, telling time, describing weather conditions and seasons, locating places around town, and ordering foods in a restaurant. Students explore the Italian-speaking world with a focus on the geography of Italy and examine the differences and similarities between Italian and American cultures.

WL-508-1★

Italian II

Grades 10, 11, 12

1 credit

Prerequisite: Italian I

In this course, there is still an emphasis on what students are able to do in the language. Students communicate on a variety of topics in the past, present and future. Students continue to study the Italian culture through readings, lectures, discussions, and the use of varied media and technology.

World Languages

WL-509-1♥★

Italian II – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Italian I

Although the content is the same as Italian II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-608-1★

Italian III

Grades 11, 12

1 credit

Prerequisite: Italian II

Italian III reinforces basic communication skills and expands to include more sophisticated writing and spontaneous speaking. Events are discussed in the past, present and future tenses. Students continue to study the Italian culture through readings, lectures, discussions, and the use of media and technology.

WL-609-1♥★

Italian III – Honors

Grades 11, 12

1 credit

Prerequisite: Italian II or Italian II - Honors

Although the content is the same as Italian III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-704-1♥★

Italian IV – Honors

Grade 12

1 credit

Prerequisite: Italian III or Italian III - Honors

Italian IV continues to refine and expand communication skills in the three modes: Interpretive (Listening and Reading), Interpersonal (Speaking and Writing), and Presentational (Speaking and Writing). There is a review of key language structures with an expansion to more advanced grammar. The course is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing proficiency in the language and exploration of Italian culture.

WL-804-1♥★

Italian IV – AP Italian Language and Culture

Grade 12

1 credit

Prerequisite: Italian III or Italian III - Honors

The AP Italian Language and Culture course provides students with opportunities to demonstrate their proficiency at the advanced level in each of the three modes of communication (Interpersonal, Interpretive, and Presentational). The course strives to promote both fluency and accuracy in language use. The course engages students in an exploration of culture in both contemporary and historical contexts and is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing advanced proficiency and refining communication skills in the language in preparation for the Advanced Placement examination. It is recommended that students in this course take the AP Exam when it is offered in May.

LATIN

These course offerings provide a possible four-year sequence of the study of Latin. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—which reinforce the skills of listening, reading, speaking, writing, and translation in Latin. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-410-1★■

Latin I

Grades 9, 10, 11, 12

1 credit

Latin I covers the fundamentals of Latin grammar and develops a basic working vocabulary. The aims include the ability to translate Latin on a first-year level, recognition and understanding of English derivatives, an understanding of English and Latin grammar, an appreciation of the development and structure of language, and an appreciation of Roman culture.

World Languages

WL-510-1★■

Latin II

Grades 10, 11, 12 **1 credit**

Prerequisite: Latin I

Latin II covers more complicated grammatical structures. It seeks to develop increased facility in translation and knowledge of Roman history.

WL-511-1♥★

Latin II – Honors

Grades 10, 11, 12 **1 credit**

Prerequisite: Latin I or Latin I - Honors

Though the content is the same as Latin II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-610-1★■

Latin III

Grades 11, 12 **1 credit**

Prerequisite: Latin II

Latin III will build on the instruction provided in Latin II. Students will receive a more comprehensive study of Roman mythology, Latin poetry, and Roman history and culture with special emphasis on Cicero.

WL-611-1♥★■

Latin III – Honors

Grades 11, 12 **1 credit**

Prerequisite: Latin II or Latin II - Honors

Although the content is the same as Latin III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-705-1♥★■

Latin IV – Honors

Grade 12 **1 credit**

Prerequisite: Latin III

In alternate years, Latin IV will build on the instruction provided in Latin III. Students will receive a more comprehensive study of Roman mythology, Latin poetry, and Roman history and culture with special emphasis on Cicero.

WL-805-1♥★■

Latin IV – AP [AP Latin: Virgil]

Grade 12 **1 credit**

Prerequisite: Latin III or Latin III - Honors

The AP Latin course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Virgil's Aeneid and Caesar's Gallic War. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical historical, and literacy sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context. It is recommended that students in this course take the AP Exam when it is offered in May.

WL-904-1♥★

Advanced Special Topics in Latin – Honors

Grade 12 **1 credit**

Prerequisite: Latin IV

Advanced Special Topics in Latin is designed for the continuing study of Latin through a content-based approach. Students practice translating passages, explicating contextual words or phrases, identifying an excerpt's context and significance, discussing and comparing themes among passages, identifying features of a particular text, and exploring evidence of Latin's continued influence on modern society.

World Languages

RUSSIAN

These course offerings provide a possible four-year sequence of the study of Russian. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—that reinforce the skills of listening, reading, speaking, and writing in Russian. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-412-1★

Russian I

Grades 9, 10, 11, 12

1 credit

This course is an introduction to the Russian language and culture. In Russian I, students communicate on a variety of topics including exchanging greetings, identifying classroom objects, describing family members, telling time, describing weather conditions and seasons, locating places around town, and ordering foods in a restaurant. Students explore the Russian-speaking world with a focus on geography and examine the differences and similarities between Russian and American cultures.

WL-512-1★

Russian II

Grades 10, 11, 12

1 credit

Prerequisite: Russian I

In this course, there is still an emphasis on what students are able to do in the language. Students communicate on a variety of topics in the past, present and future. Students continue to study the Russian culture through readings, lectures, discussions, and the use of varied media and technology.

WL-513-1♥★

Russian II – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Russian I

Although the content is the same as Russian II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-612-1★

Russian III

Grades 11, 12

1 credit

Prerequisite: Russian II

Russian III reinforces basic communication skills and expands to include more sophisticated writing and spontaneous speaking. Events are discussed in the present, past, and future tenses. Students continue to study the cultures of the Russian-speaking world through readings, lectures, discussions, and the use of media and technology.

WL-613-1♥★

Russian III – Honors

Grades 11, 12

1 credit

Prerequisite: Russian II or Russian II - Honors

Although the content is the same as Russian III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-706-1♥★

Russian IV – Honors

Grade 12

1 credit

Prerequisite: Russian III or Russian III - Honors

Russian IV continues to refine and expand communication skills. There is review of key grammar structures, expanding on previously learned items to more advanced structures. The study of culture emphasizes the history, literature, and fine arts of the Russian-speaking world.

World Languages

SPANISH

These course offerings provide a possible five-year sequence of the study of Spanish. The major goal of the courses is communication in three modes—interpersonal, interpretive, and presentational—which reinforce the skills of listening, reading, speaking, and writing in Spanish. In addition, students gain knowledge and understanding of other cultures, make connections with other disciplines, develop insight into the nature of language and culture, and explore opportunities to use the language in the classroom setting and beyond.

WL-414-1★■

Spanish I

Grades 9, 10, 11, 12

1 credit

This course introduces students to the language and cultures of the Spanish-speaking world. In Spanish I, students communicate about various topics, such as exchanging greetings, identifying classroom objects, describing family members, telling time, describing weather and seasons, locating places around town, and shopping for clothing. Students explore the Spanish-speaking world, focusing on the geography of Spain and Latin America. They compare relevant aspects of the cultures of the Americas and Spain.

WL-514-1★■

Spanish II

Grades 9, 10, 11, 12

1 credit

Prerequisite: Spanish I

This course emphasizes what students are able to do in the language. Students communicate about a variety of topics in past, present and future. Students study the culture of the Spanish-speaking world through readings, lectures, discussions, and the use of media and technology.

WL-515-1♥★

Spanish II – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Spanish I

Although the content is the same as Spanish II, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-614-1★■

Spanish III

Grades 9, 10, 11, 12

1 credit

Prerequisite: Spanish II

Spanish III reinforces communication skills and expands to include more sophisticated writing and spontaneous speaking. Events are discussed in the present, past, and future tenses. Students continue to study the culture of the Spanish-speaking world through readings, lectures, discussions, and the use of media and technology.

WL-615-1♥★

Spanish III – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Spanish II or Spanish II - Honors

Although the content is the same as Spanish III, this course is designed for the student capable of and interested in progressing through the material at an accelerated rate and exploring it in greater depth with more application of vocabulary and grammar concepts within a cultural context. Course requirements are more rigorous.

WL-707-1♥★

Spanish IV – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Spanish III or Spanish III - Honors

Spanish IV – Honors continues to refine and expand communication skills in the three modes: Interpretive (Listening and Reading), Interpersonal (Speaking and Writing), and Presentational (Speaking and Writing). There is a review of key language structures with an expansion to more advanced grammar. The course is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing proficiency in the language and exploration of Spanish-speaking cultures.

World Languages

WL-806-1♥★■

Spanish V – AP Spanish Language

Grade 11, 12

1 credit

Prerequisite: Spanish IV - Honors

The AP Spanish Language and Culture course provides students with opportunities to demonstrate their proficiency at the advanced level in each of the three modes of communication (Interpersonal, Interpretive, and Presentational). The course strives to promote both fluency and accuracy in language use. The course engages students in an exploration of culture in both contemporary and historical contexts and is structured around six themes: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics. These themes provide the context for developing advanced proficiency and refining communication skills in the language. It is recommended that students in this course take the AP Exam when it is offered in May.

WL-807-1♥★

Spanish V – AP Spanish Literature

Grade 11, 12

1 credit

Prerequisite: Spanish IV - Honors

The Spanish V class in Advanced Placement Spanish Literature familiarizes students with literary selections and develops their ability to read, write, and speak critically and intelligently about literature. The course provides students the opportunity to identify and interpret the relationships among the various elements of the composition of a literary text, where they acquire a fuller understanding and appreciation of the art and meaning of a literary work. It is recommended that students in this course take the AP Exam when it is offered in May.

WL-905-1♥★

Intermediate Special Topics in Spanish – Honors

Grades 11, 12

1 credit

Prerequisite: Spanish III or Spanish III - Honors

Intermediate Special Topics in Spanish uses a thematic approach to move students forward in their language across intermediate proficiency levels. In the course, students strengthen their skills within the three communicative modes (Interpretive, Interpersonal, and Presentational) and four skill areas (Reading, Writing, Speaking, and Listening) while deepening their understanding of target culture products and perspectives through the use of authentic texts and real-world tasks. **Note: Course may not meet all colleges' entrance requirements.**

WL-906-1♥★

Advanced Special Topics in Spanish – Honors

Grades 11, 12

1 credit

Prerequisite: Spanish IV - Honors or Intermediate Special Topics in Spanish

Advanced Special Topics in Spanish uses a thematic approach to move students forward in their language proficiency toward intermediate high and advanced levels. In the course, students strengthen their skills within the three communicative modes (Interpretive, Interpersonal, and Presentational) and four skill areas (Reading, Writing, Speaking, and Listening) while deepening their understanding of target culture products and perspectives through the use of authentic texts and real-world tasks.

WL-999-1

Laboratory Assistant - World Languages

Grades 11, 12

1 elective credit

Working under the direction of the teacher, student assistants with language skills gain experience in the development of second language acquisition. Laboratory Assistants type and duplicate materials designed by the teacher; provide assistance to students in World Language classes or to multilingual learners during the administration of exercises, activities, projects, and tests; and provide tutorial assistance to students under the guidance of the teacher. Only one elective credit can be earned as a student assistant; credit may only be awarded after the 20th required graduation credit has been recorded. Students do not have access to student grades or personal data.

Other Elective Course Offerings

MC-500-8 - Semester

MC-500-1 - Year

SAT Preparation Course

Grades 10, 11, 12 **1/2-1 elective credit**

Prerequisites: Algebra I and Geometry

Corequisite: Algebra II

This course provides strategy-based instruction designed to improve students' test-taking skills and increase their potential for success on both the PSAT and SAT tests. This course focuses on the teaching and application of proven mathematics and verbal strategies as recommended by the College Board. Students are expected to register and take the SAT upon completing the course.

MC-505-8

Financial Literacy

Grades 10, 11, 12 **1/2 elective credit**

Prerequisites: Algebra I and Geometry

This course is intended to provide students with the skills necessary to be financially literate consumers and citizens. The content includes units on earning income, banking, credit and loans, housing, transportation, taxes, tools, budgeting, investments, and retirement.

MC--520-8

Leadership and Student Service Learning

Grades 10, 11, 12 **1/2 credit**

(Helps to fulfill the Student Service Learning Requirement)

This semester course emphasizes the acquisition of leadership skills while engaging in a student service learning experience that meets MSDE requirements. Topics include organizational structure and operational techniques, application of interpersonal skills, collaborative problem solving, and decision-making. Participation in a student service learning project is required of all students. **A Service Learning Validation Form needs to be completed and submitted to school counselor after course completion.**

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OTHER ELECTIVE COURSE OFFERINGS

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Financial Literacy	129
Leadership and Student Service Learning	129

Four Year High School Plan

Graduation Requirements* Grade 9 Prior to SY2021-22

English	4 Credits	Program Choice: World Language (2 Credits) OR Advanced Technology (2 Credits) OR Career Academy (Advanced Technology Completer) (3 or more Credits)	Additional Requirements: • Service Learning • Career Preparation • Maryland High School Assessment Requirements
Social Studies	3 Credits		
Mathematics	3 Credits		
Science	3 Credits		
Physical Education	1/2 Credit		
Health	1/2 Credit		
Fine Arts	1 Credit		
Computer Science, Engineering or Technology Education	1 Credit		
Program Choice	2-4 Credits		
Electives	1-3 Credits		
Total Credits	21 Credits		

Grade 9	
English 9	
U.S. History	
Mathematics	
Science	
Health I	
Lifetime Fitness	
<i>Summer School</i>	
Credits Earned	

Grade 10	
English 10	
American Government	
Mathematics	
Science	
<i>Summer School</i>	
Credits Earned	

Grade 11	
English 11	
Modern World History	
Mathematics	
Science	
<i>Summer School</i>	
Credits Earned	

Grade 12	
English 12	
Mathematics	
<i>Summer School</i>	
Credits Earned	

* Refer to Graduation Requirements (page 1)

Student Name: _____

Four Year High School Plan

Graduation Requirements* Grade 9 in SY2021-22 or Later

English	4 Credits	Program Choice: World Language (2 credits in the same World Language) OR Career Academy (Advanced Technology Completer) (3 or more Credits)	Additional Requirements: • Service Learning • Career Preparation • Maryland High School Assessment Requirements
Social Studies	3 Credits		
Mathematics	4 Credits		
Science	3 Credits		
Physical Education	1/2 Credit		
Health	1 Credit		
Fine Arts	1 Credit		
Computer Science, Engineering or Technology Education	1 Credit		
Program Choice	2-4 Credits		
Electives	1-3 Credits		
Total Credits	22 Credits		

Grade 9

English 9	
U.S. History	
Mathematics	
Science	
Health I	
Lifetime Fitness	
<i>Summer School</i>	
Credits Earned	

Grade 10

English 10	
American Government	
Mathematics	
Science	
Health II	
<i>Summer School</i>	
Credits Earned	

Grade 11

English 11	
Modern World History	
Mathematics	
Science	
<i>Summer School</i>	
Credits Earned	

Grade 12

English 12	
Mathematics	
<i>Summer School</i>	
Credits Earned	

* Refer to Graduation Requirements (page 1)

Student Name: _____

Directory of High Schools

Atholton

6520 Freetown Road
Columbia, MD 21044
Robert Motley, Principal
www.hcpss.org/ahs
410-313-7065 (school)
410-313-7068 (counseling)

Centennial

4300 Centennial Lane
Ellicott City, MD 21042
Cynthia Dillon, Principal
www.centennialeagles.org
410-313-2856 (school)
410-313-2857 (counseling)

Glenelg

14025 Burntwoods Road
Glenelg, MD 21737
Shawn Hastings-Hauf, Principal
www.hcpss.org/ghs
410-313-5528 (school)
410-313-5535 (counseling)

Hammond

8800 Guilford Road
Columbia, MD 21046
John DiPaula, Principal
www.hammondhs.org
410-313-7615 (school)
410-313-7620 (counseling)

Howard

8700 Old Annapolis Road
Ellicott City, MD 21043
Nick Novak, Principal
www.hcpss.org/hhs
410-313-2867 (school)
410-313-2871 (counseling)

Long Reach

6101 Old Dobbin Lane
Columbia, MD 21045
Josh Wasilewski, Principal
www.hcpss.org/lrhs
410-313-7117 (school)
410-313-7412 (counseling)

Marriotts Ridge

12100 Woodford Drive
Marriottsville, MD 21104
Tammy Goldeisen, Principal
www.hcpss.org/mrhs
410-313-5568 (school)
410-313-5446 (counseling)

Mt. Hebron

9440 Old Frederick Road
Ellicott City, MD 21042
Joelle Miller, Principal
www.mthebron.com
410-313-2880 (school)
410-313-2883 (counseling)

Oakland Mills

9410 Kilimanjaro Road
Columbia, MD 21045
Jeffrey Fink, Principal
www.hcpss.org/omhs
410-313-6945 (school)
410-313-6950 (counseling)

Reservoir

11550 Scaggsville Road
Fulton, MD 20759
Karim Shortridge, Principal
www.hcpss.org/reservoir
410-888-8850 (school)
410-888-8860 (counseling)

River Hill

12101 Clarksville Pike
Clarksville, MD 21029
Mikaela Lidgard, Principal
www.hcpss.org/rhhs
410-313-7120 (school)
410-313-7400 (counseling)

Wilde Lake

5460 Trumpeter Road
Columbia, MD 21044
Marcy Leonard, Principal
www.hcpss.org/wlhs
410-313-6965 (school)
410-313-6968 (counseling)

Special Schools/Centers

Applications and Research Lab

10920 Clarksville Pike
Ellicott City, MD 21042
Karl Schindler, Administrator
410-313-6998 (school)

Cedar Lane School

11630 Scaggsville Road
Fulton, MD 20759
Paul Owens, Principal
410-888-8800 (school)

Homewood Center

10914 Clarksville Pike
Ellicott City, MD 21042
Christina Krabitz, Principal
www.hcpss.org/homewood
410-313-7081 (school and counseling)

Central Office

Howard County Public School System

10910 Clarksville Pike • Ellicott City, MD 21042
410-313-6600



10910 Clarksville Pike • Ellicott City, MD 21042
410-313-6600 • www.hcpss.org

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