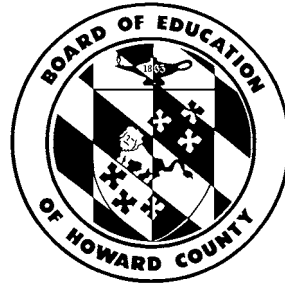


Catalog of Approved High School Courses 2016-17



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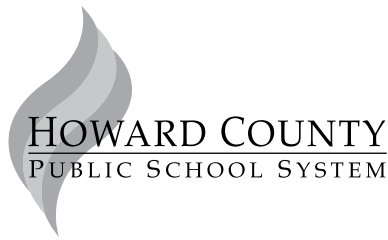
Ellen Flynn Giles

Christine E. O'Connor

Cynthia L. Vaillancourt

Rachel Lin
Student member 2015-16

Renee A. Foose, Ed.D.
Superintendent of Schools



Dear Student:

The Howard County Public School System offers a wide variety of courses for high school students. The purpose of the Catalog of Approved High School Courses is to help you and your parents select the courses that are best for you. Choosing the courses for your high school program is an extremely important task and one 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 available to help you make wise choices. Take full advantage of the help and support they offer. Be sure to schedule an appointment with your school counselor to help you with the important task of developing your Four-Year High School Plan. Also, meet with your school counselor each year to review your plan and to select courses for the upcoming school year.

High school is an exciting time of life. You can design a program of studies that is uniquely suited to helping you grow and develop into the person you want to be. Plan your academic program to move you toward the future you want for yourself. On behalf of our entire school system, I wish you much success.

Sincerely,

A handwritten signature in black ink, appearing to read "Renee A. Foose". The signature is fluid and cursive, with a long horizontal stroke at the end.

Renee A. Foose, Ed.D.
Superintendent of Schools

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Coordinator

World Languages

TABLE OF CONTENTS

Graduation Requirements

Graduation Requirements	1	Courses Meeting the Fine Arts Requirements	6
Credit Requirements	2	Fine Arts Course List	6
Credit for High School Courses Taken in Middle School	3	Courses Meeting the Technology Education Requirements	7
Career Preparation Requirements	3	Technology Education Course List	7
Student Service Requirements	3	Program Choices	7
Assessment Requirements	4	Program Option 1	7
Maryland High School Assessments.	4	Program Option 2	7
Interventions and Retaking Assessments.	5	Program Option 3 A	8
AP Substitute Exams for the Maryland HSA	5	Program Option 3 B	8
Bridge Plan for Academic Validation	5		

General Information

General Information	9	ESOL. . . . .	.15
Attendance . . . . .	.10	JROTC . . . . .	.15
Release Time: Qualifications and Procedures. . . . .	.10	Advanced Research Courses . . . . .	.15
Grading and Reporting. . . . .	.11	Alternative Sources of Credit . . . . .	.16
Weighted GPA and Class Rank . . . . .	.11	Digital Education Courses . . . . .	.17
Promotion. . . . .	.12	Alternatives to Four-Year Enrollment . . . . .	.17
Academic Eligibility . . . . .	.12	Guidelines for Students Planning to Attend College or	
NCAA Eligibility. . . . .	.13	Technical School . . . . .	.18
Diploma Endorsements: HCPSS Certificate of Merit . . . . .	.13	Early College Program . . . . .	.19
Maryland High School Certificate . . . . .	.13	Cybersecurity. . . . .	.19
Course Offerings . . . . .	.13	College Credit . . . . .	.20
Course Levels -- 5 Levels. . . . .	.14	Industry Certifications . . . . .	.20
Special Education. . . . .	.14	STEM . . . . .	.21
504 . . . . .	.14	SAT Subject Tests . . . . .	.22
Teen Parenting . . . . .	.14	Fee Waivers . . . . .	.24

Career Academies

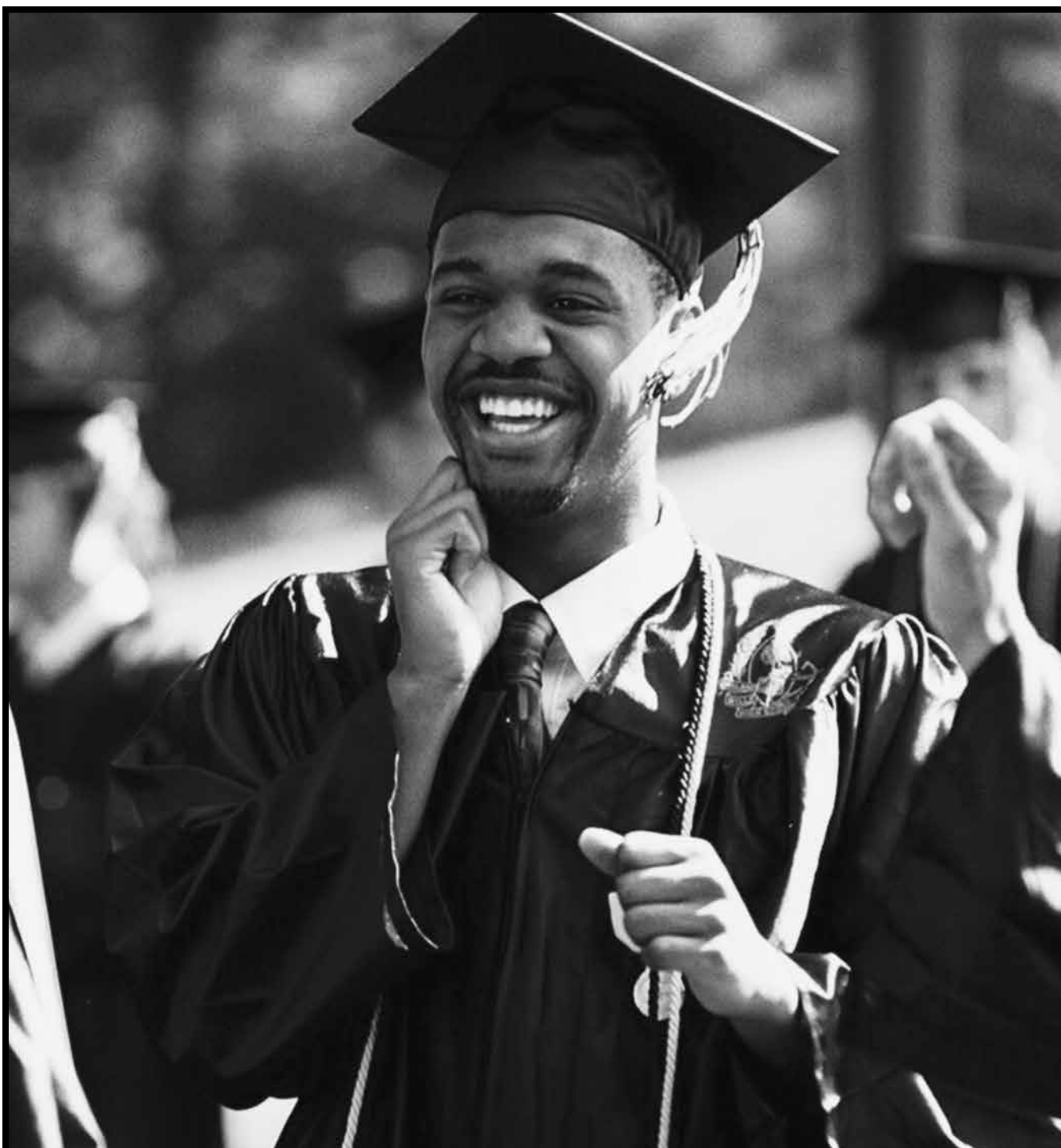
Career Academies - General Information . . . . .	.26	Cybersecurity Networking Academy . . . . .	.41
Accounting Academy. . . . .	.28	Engineering: Project Lead the Way (PLTW) Academy . . . . .	.43
Aerospace Engineering: Project Lead the Way (PLTW) Academy . . . . .	.29	Finance, Academy of . . . . .	.44
Architectural Design Academy . . . . .	.31	Health Professions, Academy of . . . . .	.45
Automotive Technology Academy . . . . .	.32	Homeland Security and Emergency Management Academy . . . . .	.48
Biotechnology Academy . . . . .	.33	Hotel and Restaurant Management Academy . . . . .	.50
Career Research and Development . . . . .	.35	Marketing Academy . . . . .	.52
Child Development Academy . . . . .	.36	Systems and Project Engineering Academy . . . . .	.53
Computer Programming Academy . . . . .	.37	Teacher Academy of Maryland . . . . .	.54
Construction Management Academy. . . . .	.38	Visual Communications . . . . .	.56
Culinary Science Academy . . . . .	.39		

Course Descriptions

Course Descriptions . . . . .	.57	Fine Arts . . . . .	.86
Course Description Diagram . . . . .	.58	Art . . . . .	.87
Advanced Research . . . . .	.59	Dance Education . . . . .	.90
Career and Technology Education (CTE) . . . . .	.61	Music . . . . .	.92
Business and Computer Management Systems. . . . .	.62	Theatre Arts . . . . .	.97
Career Research and Development . . . . .	.64	Health Education.	100
Engineering and Technology Education . . . . .	.65	Student Services	101
Family and Consumer Sciences. . . . .	.67	Mathematics	102
Centralized Academy Courses . . . . .	.69	Media	107
JROTC . . . . .	.74	Physical Education	109
English . . . . .	.75	Reading.	112
ESOL. . . . .	.82	Science	114
		Social Studies	120
		Special Education.	128
		World Languages	131

Appendix

Course Index	i	Four-Year High School Planiii
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Graduation Requirements

Graduation Requirements

Credit Requirements: Students must earn a minimum of 21 credits to graduate. Credits can be earned in the following areas:

CORE REQUIREMENTS		OTHER REQUIREMENTS	
Subject Area	Current Specific Credit Requirements	Subject Area	Current Specific Credit Requirements
English	4 credits, including: • 1 credit in English 9 • 1 credit in English 10 • 1 credit in English 11 • 1 credit in English 12	Fine Arts	1 credit See course list on page 6.
		Physical Education	1/2 credit, including: Lifetime Fitness
Mathematics	3 credits*, including: • 1 credit in Algebra I • 1 credit in Geometry	Health	1/2 credit, including: Health Education or Current Health Issues
Science	3 credits, including: • 1 credit in Biology • 2 additional credits including laboratory experience, in any or all of the following areas: » Earth Science » Environmental Science » Life Science » Physical Science	Technology Education	1 credit See course list on page 7.
		Program Choice	2 credits in World Language** OR 2 credits in American Sign Language*** OR 2 credits in an approved Advanced Technology Program (see Program Choices on page 7) OR 4 or 5 credits in a Career Academy (State-approved Career and Technology Education Completer Program)
Social Studies	3 credits, including: • 1 credit in U.S. History • 1 credit in Local, State and National Government • 1 credit in World History	Electives	1-3 credits to include courses beyond requirements.

* All students must graduate with a credit with instruction in algebra and one credit with instruction in geometry. For the graduating class of 2018 and later, students must be enrolled in a mathematics course in each year of high school (for a maximum of four years unless a mathematics course is needed to meet graduation requirements in additional years).

** Students who received credit for Spanish I or French I based on work in middle school before the 2015-16 school year, still need to earn at least 2 credits in World Language for this program choice option.

*** Students must complete both ASL I and II in high school to meet the graduation requirement. More details for 2015-16 and beyond are on the next page.

Graduation Requirements

Credit for High School Courses Taken in Middle School

High school courses offered at the middle school level are eligible for high school credit.

Beginning with courses completed in the 2015–16 school year:

1. The student's passed course will count toward the 21 credits for graduation requirement.
2. The student's course grade will be recorded on the high school transcript.
3. The student's grade will not be calculated into the high school grade point average.
4. For high school world language courses, one credit will be awarded at the completion of a course in grade 8.

Career Preparation Requirements*

The Howard County Public School System requires that all students be given the opportunity to 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.

By the end of September of their senior year, students should have documentation on file in the Counseling Center that they have completed a career plan, a résumé, and an interview.

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 do not, or who transfer into Howard County public schools from out-of-state or nonpublic schools, will be required to complete service learning as follows:

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

** See the school counselor for more information on how to fulfill these requirements.*

Assessment Requirements

Maryland High School Required Assessments

The assessed courses are Algebra I, English 10, Biology, and American Government. Students must meet the assessment requirements in each course to earn a Maryland high school diploma. The assessments ensure that graduates have mastered the basic skills needed to succeed after high school. To measure student achievement of Maryland's College and Career-Ready Standards, Maryland has implemented the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment in English 10 and Algebra I. Because of the transition to the PARCC assessments, students who have taken the corresponding Algebra I and English 10 courses prior to the 2016-17 school year are not required to achieve a passing score on the PARCC assessments. Maryland-designed High School Assessments (HSA) in Government and Biology will continue to be administered during and after the transition.

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 four courses associated with the assessments are typically taken during freshman and sophomore years.

Course	Tester Status	Assessment Requirement
Algebra I	Enrolled in Algebra I for the first time beginning in Fall 2015	Participate in PARCC Algebra I
	Completed Algebra I prior to the Fall of 2015	Receive a score for Algebra 1 PARCC or Algebra I HSA
	Enrolled in Algebra I after the 2015-16 school year	Pass Algebra I PARCC
English 10	Enrolled in English 10 for the first time beginning in Fall 2015	Participate in PARCC English 10
	Completed English 10 prior to the Fall of 2015	Receive a score for English 10 PARCC or English 10 HSA
	Enrolled in English 10 after the 2015-16 school year	Pass English 10 PARCC
Biology	Enrolled in or previously taken Biology	Pass Biology HSA
American Government	Entered 9th Grade prior to the 2013-14 school year	Receive a score for Government HSA
	Entered 9th Grade in or after the 2013-14 school year	Pass Government HSA

Assessment Requirements

Interventions and Retaking Assessments

- Howard County Policy 8030 states that a student may retake a test in order to increase a test score if the student participates in an approved assistance program to strengthen areas of weakness. Students who fail a required state assessment must receive appropriate assistance before retaking the exam. Howard County also offers a variety of interventions before and during the Maryland State Assessed Courses. In addition, the school system has several different options for students to receive appropriate assistance. The chart below summarizes the interventions that are available. Contact your school counselor for additional information.

Before Course	During Course	After Course (Appropriate Assistance)
Middle School Interventions	Co-taught Seminar Courses	Summer School
Summer School Prep Course	Co-teaching in general education classes	Mastery Courses
	Tutorial classes for extra assistance and support	After school intervention programs and tutoring
	After-school intervention programs and tutoring	Saturday Bridge Academy

AP Substitute Exams for the required Maryland State Assessments

- To encourage more rigorous coursework and eliminate duplicate testing, MSDE accepts scores of 3, 4, and 5 on identified Advanced Placement (AP) exams (see below) in place of passing scores on the corresponding State Assessments.

MD Required Assessments	Advanced Placement exam (acceptable scores: 3, 4, 5)	Student Requirements
Algebra I	<ul style="list-style-type: none"> Calculus AB Calculus BC Statistics 	<ul style="list-style-type: none"> Take AP course and test Earn acceptable score Substitute acceptable AP score for the required state assessment passing score
Biology	<ul style="list-style-type: none"> Biology 	
English 10	<ul style="list-style-type: none"> English Language English Literature 	
Government	<ul style="list-style-type: none"> U.S. Government and Politics 	

Bridge Plan for Academic Validation

- The Bridge Plan for Academic Validation provides eligible students an additional opportunity to meet the testing requirement that will lead to a Maryland High School Diploma. Students must demonstrate defined knowledge and skills to graduate, either through the traditional testing program, which includes passing, determined by late 2015, or earning the required combined score, or the Bridge Plan program. An HCPSS student who thinks (s)he qualifies for this option is encouraged to explore the Bridge Plan for Academic Validation option with a school counselor.
- The Bridge Plan has been approved by the Maryland State Board of Education and is included in the Code of Maryland Regulations (COMAR).

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 - 6000 Art II: Developing Ideas in Media - 6001 Art II: Developing Ideas in Media - G/T - 608M Art III: Portfolio Development - AP - 604M, 605M Art III: Portfolio Development - Honors - 602M, 603M Art IV: Personal Directions in Art Studio - AP - 606M, 607M Art IV: Personal Directions in Art Studio - Honors - 600M, 601M New Forms in Art - 6005 Photography I - 6006 Photography I - G/T - 609M Photography II - Honors - 691M, 698M Photography II - AP - 696M, 697M Photography III - Honors - 694M, 695M Photography III - AP - 692M, 693M	Music -- Fine Art Courses Band - Symphonic/Marching - 62011 Band - Symphonic Winds/Marching - 64801 Band - Wind Ensemble/Marching - 64001 Band - Wind Ensemble/Marching - 63801 Band - Concert - 62801 Chorus - 63511 Piano I, II - 6496, 6497, 6495, 6407 Piano III/IV - Honors - 6408 Chamber Choir - 63611 Chamber Choir - 62301 Concert Choir - 63011 Concert Choir - G/T - 63201 Guitar I, II - 6491, 6492, 6490, 6405 Guitar III/IV - Honors - 6409 Instrumental Ensemble - 62201 Jazz Ensemble - 62841 Music and Society - 6101, 6102, 6100 Music Technology I, II - 6198, 6199, 6200, 6203 Music Theory I - 6110 Music Theory II - AP - 612 Percussion Ensemble - 6460, 6461, 649M, 650M String Ensemble - 6462, 6465, 6468, 6471 String Orchestra - 6410, 6420, 643M, 646M String Orchestra - G/T - 626M, 627M, 628M, 629M Vocal Ensemble - 6380, 6385, 6390, 6395 Vocal Ensemble - G/T - 63981
Dance -- Fine Art Courses Dance I, II, III, IV, IV - G/T - 7120, 7121, 7123, 714M, 715M Junior Dance Company - G/T - 713M Dance Company - G/T - 716M	
Family and Consumer Sciences -- Fine Art Courses Foundations of Fashion and Interior Design - 6556	
Media -- Fine Art Courses Television - 1860	Theatre -- Fine Art Courses Theatre Arts I, II, III, III - G/T, IV, IV - G/T - 1690, 1691, 169M, 171M, 170M, 172M Musical Theatre I, II, II - G/T, III, III - G/T - 1721, 1722, 173M, 1723, 174M Technical Theatre I, II - G/T, III - G/T - 1711, 175M, 176M

Courses Meeting the Technology Education Requirements

Technology Education Course List: Any of these courses meet the Technology Education Graduation Requirement.

Engineering Design - 684M
Exploring Computer Science - Honors - 450M
Computer Science Principles - AP - 47301
Foundations of Technology - 6751
PLTW Engineering Design - G/T - 681M
Aerospace I - G/T - 688M

Program Choices

Students must complete at least one of the following options:

Option 1: World Language OR American Sign Language

2 Credits in World Language OR
2 Credits in American Sign Language

Option 2: Advanced Technology Education Sequence

2 Credits in an approved Technology Education Sequence
Advanced Technological Applications - 677M
Advanced Design Applications - 676M

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

Option 3: Career and Technology Education (CTE) Completer

4 Credits in a **CTE** Program OR
4 Credits in Career Research and Development (**CRD**)

Program Option 3

Career and Technology Education Completer

A. CTE -- Career and Technology 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 of students 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 <ul style="list-style-type: none"> • Visual Communications Academy with pathways in Graphic Design and Animation 	Human Resource Services Cluster <ul style="list-style-type: none"> ✕ Child Development Academy • Homeland Security and Emergency Management Academy ✕ Teacher Academy of Maryland
Business, Management and Finance Cluster <ul style="list-style-type: none"> • Academy of Finance ✕ Marketing Academy ✕ Accounting Academy 	Information Technology Cluster <ul style="list-style-type: none"> ✕ Computer Programming Academy • Cybersecurity Networking Academy with pathways in Computer Networking and PC Systems
Construction and Development Cluster <ul style="list-style-type: none"> • Architectural Design Academy • Construction Management Academy 	Manufacturing, Engineering and Technology Cluster <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ✕ Culinary Science Academy • Hotel and Restaurant Management Academy 	Transportation Technologies Cluster <ul style="list-style-type: none"> • Automotive Technology Academy
Health and Biosciences Cluster <ul style="list-style-type: none"> • Biotechnology Academy • Academy of Health Professions (with pathways in Certified Nursing Assistant, Clinical Research in Allied Health, and Emergency Medical Technician). 	
<ul style="list-style-type: none"> • ARL-based for 10th, 11th and 12th grade academy courses. ✕ All courses are offered at the local high school. 	

B. CRD -- Career Research and Development

Career Research and Development empowers students to create a vision of their future through quality academic coursework, progressive career development and appropriate work opportunities. Students identify their interests, aptitudes and abilities, and apply that knowledge to investigate careers and higher education. 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.

Career Research and Development I 1 Credit	Career Research and Development II 1 Credit	Site-Based Work Experience 2-4 Credits
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General Information

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) for access to full copies of Board of Education policies.

Attendance

All students are expected to attend school regularly in accordance with the Public School Laws of Maryland, Sections 7-301, 7-302, and 3-804 of the Courts and Judicial Proceedings Article, and may be excused from class or school only for reasons as specified in the Code of Maryland Regulations, 13A.08.01.02, 13A.08.01.03, 13A.08.01.06, and 13AA.10.01.04 (A-B).

***Attending school regularly
is the first step toward
academic excellence!***

Note: Any high school student with unlawful absences constituting 5% of a semester or yearlong course may have his or her name submitted to the principal via the teacher for consideration of denial of credit. A teacher also may submit the name of a student for whom lawful and/or unlawful absences constitute 5% of a semester or yearlong course if the student has not made up missed work or is not meeting expected levels of performance.

For more information on the Attendance Policies see the HCPSS High School Student Handbook.

Release Time: Qualifications and Procedures

Any senior who wishes to leave school early for employment should enroll in Career Research and Development I prior to the senior year. This course provides students the opportunity to experience career, interest, and aptitude inventories to assist them in making career and/or higher education choices. Students will also have the opportunity to earn a Passport to the Future certificate, which is recognized by the Howard County Chamber of Commerce as a valuable credential in the hiring of entry-level student employees. To qualify for Early Release Time, approval must be granted through the school counselor and an administrator. In addition, the following conditions apply:

- Applicants must complete an Early Release-Time form available from the counseling center. The school counselor and principal must indicate their approval on this form.
 - If the conditions upon which approval was granted change (the student changes jobs, quits job, or drops class, etc.), it is the responsibility of the student to inform the school of this change.
 - Students who are on Early Release Time must leave the school premises after their last class. Parents assume all responsibility for students during Early Release Time.
 - In order to be eligible for release time, students must have passed all high school assessments, and they must have completed their student service hours and the Career Preparation requirements.
 - Release time approval requires proof of employment during school hours or attendance at a local college (registration form preferred as proof).
1. Teachers should notify parents of unsatisfactory progress throughout the marking period.
 2. At the midpoint of each marking period, all teachers will provide written notice to the parent concerning student progress including attendance.
 3. Report cards are issued to parents at the conclusion of each marking period.
 4. Final report cards for high school students will be mailed to parents at the end of each school year.

General Information

Determining Final Grades and Credit

Full-Year Courses

- Multiply the quality points for each marking period grade by two. Add the quality points for each examination grade. Compute the sum and divide by ten.
- For reporting purposes, the quotient will be converted to a letter grade using the following scale:

A = 3.50 - 4.00
B = 2.50 - 3.49
C = 1.50 - 2.49
D = 0.75 - 1.49
E = Below 0.75 (no credit)

Note: The average for a D must be 0.75 (not .50) to 1.49 in order for credit to be awarded. See Policy 8020 for more information.

Semester courses (half-credit courses)

- Multiply the quality points for each marking period grade by two and compute their sum. Add the quality points for the examination grade and divide by five.
- For reporting purposes, the quotient will be converted to a letter grade using the following scale:

A = 3.50 - 4.00
B = 2.50 - 3.49
C = 1.50 - 2.49
D = 0.75 - 1.49
E = Below 0.75 (no credit)

Note: The average for a D must be 0.75 (not .50) to 1.49 in order for credit to be awarded. See Policy 8020 for more information.

Final grades are determined by translating the letter grade for each quarter and each examination using the following quality points scale:

- A = 4
- B = 3
- C = 2
- D = 1
- E = 0

Weighted Grade Point Average (GPA) and Class Rank

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 GT 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

To be promoted to grade 9 students must have:

- Passed all courses.
- Received a final grade of C or better in the core subjects.

Ninth Grade Intervention Courses

Any student performing below grade level in reading and/or mathematics at the end of 8th grade is **required** to participate in appropriate interventions (Policy 8010) in order to be promoted 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-IP (High School Grading and Reporting) governs procedures related to students who withdraw from courses or change levels of a course. Any student who withdraws from any course more than seven school days after the published first quarter interim report will receive a **W** (withdrawal) on the report card and permanent record card. No credit shall be received by students who withdraw.

- a. If a student transfers between levels of the same course, the grade the student earned will be transferred and averaged. A **W** code will not be assigned.
- b. If a student withdraws from a course and transfers to a different course more than one week after the published first quarter interim report, no credit will be awarded unless a half-credit course option is available. The schedule change form will be placed in the student's cumulative record. A **W** code will be assigned.

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.

Marking Period Criteria

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.

General Information

Summer School

For calculating eligibility, review and original credit course grades earned in summer school will be used in lieu of the grade earned in the same course during the fourth marking period.

Special Education Students

The Academic Eligibility Policy governs Special Education students' 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.

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.

Diploma Endorsements: HCPSS Certificate of Merit

Policy 8030: Graduation Requirements Implementation Procedures have been updated to reflect changes in diploma endorsements.

The last group of students eligible for the Howard County Public School System Certificate of Merit is the graduating class of school year 2018–19. Students demonstrate academic achievement through a variety of programs including Advanced Placement (AP), Gifted and Talented and Honors course opportunities that exceed the expectations of the Certificate of Merit program.

Maryland High School Certificate

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, work activity centers, sheltered workshops, and supported employment.
- The student has been enrolled in an education program for four years beyond grade eight or its age equivalent and has reached age 21.

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.

General Information

Course Levels

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

Review Courses are designed to assist those students who are performing below grade level in reading and/or mathematics. Review-level classes may not be scheduled at all schools because some schools use tutorials, seminars, or small groups in a regular class to assist students performing below grade level in reading and/or mathematics. Both “regular” and “review” designate an instructional level, are not part of the course title, and will not appear on report cards or transcripts. The courses prepare students with the knowledge and skills required to meet state content standards.

Regular Courses are designed for students who have grade level skills. The courses prepare students with the knowledge and skills required to meet state content standards.

Honors Courses are designed for students who are capable of and interested in progressing through course material with more depth and rigor than the regular course. Honors courses meet the criteria specified for the Certificate of Merit. The courses prepare students with the knowledge and skills required to meet state content standards.

Gifted and Talented (G/T) Courses are offered for students with exceptional ability. Gifted and Talented courses meet the criteria specified for the Certificate of Merit. The courses prepare students with the knowledge and skills required to meet state content standards.

Advanced Placement (AP) Courses are 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. Advanced Placement courses meet the criteria specified for the Certificate of Merit.

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-R). NOTE: All diploma seeking students, including students with IEPs and 504 plans, must complete graduation requirements.

504

Students become eligible for a 504 plan due to a documented disability that limits one or more major life functions. A multidisciplinary 504 team develops the 504 plan that reflects appropriate accommodations and modifications in accordance with Section 504 of the Rehabilitation Act. NOTE: All diploma seeking students, including students with IEPs and 504 plans, must complete graduation requirements.

Teen Parenting

Pregnant and parenting teens may enroll in the Teen Parenting Program, which may provide day care for infants, 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. English, mathematics, social studies, and science are provided within the instructional program.

General Information

ESOL

All eligible students must be notified of these courses at registration. Names of recommended students should be submitted to the Curriculum Coordinator for ESOL. An evaluation of foreign transcripts and credits will be conducted to determine credits earned toward a Maryland High School Diploma. The ESOL program is located at the following **high schools**:

Atholton	Centennial	Hammond	Howard	Long Reach	Marriotts Ridge
Mt. Hebron	Oakland Mills	Reservoir	River Hill	Wilde Lake	

JROTC

Army JROTC is offered at Atholton High School and Howard High School. Air Force JROTC is offered at Oakland Mills High School. 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. 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. Students accepted to the program must provide their own transportation and 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.

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.

Internships, mentorships and research courses are great ways to explore careers and enhance your academic program!

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

Alternative Sources of Credit

Besides attending regular school classes, students may earn extra credits in a number of ways. Many require prior authorization from the school principal.

Summer School

Howard County's summer school program offers courses on a tuition basis when twenty or more students register. Original credit classes, review credit classes, and other noncredit classes are offered. See your school counselor for more information.

Howard County Public Schools recognize summer school work completed at state-approved public institutions in or outside of Maryland. Students must secure the principal's authorization in advance before attending summer school for credit outside the county.

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 Assistant Superintendent. 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.

College Courses

Credit towards high school graduation may be given for approved courses taken at an accredited college, provided prior approval is obtained by the high school principal. One high school credit will be awarded for completion of each college course which is equivalent to (or beyond) a course in the *Catalog of Approved High School Courses*. A list of approved courses is available in your counseling center. Those credits awarded toward high school graduation should be recorded as transfer credits on the transcript.

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.

General Information

Digital Education Courses

In support of the HCPSS *Vision 2018* strategic plan, the school system offers selected courses in a variety of digital formats. These courses, marked with the ■ icon through out this catalog, have been approved by the MSDE and Howard County Public Schools as a digital education option 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 are still accepted by the MSDE for the subsequent school year. Digital education is designed to provide **supplemental access** to courses and **does not provide a full-time** virtual school option.

All digital education courses are facilitated and taught by highly qualified teachers. Digital Education courses are not designed to be “stand-alone” or independent study. The current digital education option formats are:

- **Blended** course instruction – students work with an online teacher and access instructional materials through both online coursework and face-to-face instruction. The number of face-to-face meetings will vary depending on the course.
- **Fully online** course instruction – students work with an online teacher and access the majority of instructional materials through online coursework. There are no face-to-face meetings but the student may meet with the online teacher through phone, web or video conference as needed.
- **Synchronous video** course instruction – students access real-time instruction with a teacher using synchronous video technology. A video camera is set up in the primary classroom to allow for real-time video streaming of instruction to remote sites.

HCPSS will use the following parameters to guide decision-making in determining whether or not a student is eligible to enroll in an online course:

- the school does not offer the course;
- the student has a schedule conflict that prevents taking a course when it is offered at the school;
- the student is pursuing early graduation or early college access (must verify through 4-year plan); and
- administrative placement (medical, alternative education, etc.).

A student requesting permission to take an online course should complete the following:

1. Schedule a formal meeting with a school counselor to discuss the appropriateness of taking a digital education course and the appropriateness of the specific course to be taken.
2. Work with the school counselor to complete the Digital Education Enrollment Request form.
3. Within 72 hours you will receive notification from the school counselor or Digital Education Program with the status of your request. If your request is approved you will receive an email with course access information. If your request is not approved, the school will notify you in writing with an explanation as to why your request was denied.

Please contact your school counselor or the Digital Education Program office (dep@hcpss.org or 410-313-5334) for more information.

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. A full schedule may include credits earned through employment as part of a Career Research and Development program.

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 submitting a written request to their principal along with a portfolio that contains:

- A résumé.
- A well written essay which explains their career plans and includes how this option will enhance career plans.
- A written request from parents or guardians stating their agreement with the student’s request.
- An academic package, which includes a transcript, test scores, college/career readiness indicator, 4/5 year plan (available in Naviance), and attendance records.

See your 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 college's web site.

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 web site 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 increased course requirements and would expect the student to take courses at the honors and/or GT level. The best way to plan a curriculum for these schools is to check current sources of information from the school's guidance office 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 College	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 11 institutions of the University System of Maryland or by consulting resources available in the counseling center.

General Information

Early College Program

Cybersecurity

The Cybersecurity Early College Program is a five-year cohort program that allows students to earn a high school diploma, CompTIA Network+ certification, CompTIA Security+ certification, and an Associate of Arts (A.A.) degree in Cybersecurity from Howard Community College. With the A.A. in Cybersecurity, students can transfer to one of a number of Maryland universities having already earned at least 60 credits toward a bachelor's degree. In addition, CompTIA Network+ certification is recognized by industry as a foundation for employment in the Information Technology (IT) field.

In 2012, the IT industry reached \$3.6 trillion worldwide, and the U.S. market represents more than one quarter, or just under \$1 trillion, of that total. Network security is a growing field, especially in Maryland and surrounding states. A January 2013 report from CyberMaryland, a public-private partnership providing resources and services to the network security industry, identified approximately 20,000 current network security job openings in more than 1,000 companies in Maryland's commercial and government sectors. Students who complete the program and achieve the CompTIA Network+ certification will have knowledge and skills in network technologies, installation and configuration, and network management and security required for mid-administration level IT positions in the private, public, and government sectors.

The Cybersecurity Early College Program provides additional opportunities and support to students to ensure their success. By becoming part of the program cohort, students will receive specialized academic advising and career counseling to enhance college and career readiness, instruction in the soft skills in demand by employers, opportunities to interact through a dedicated web-based social network, and access to internships and job shadowing experiences reserved for Cybersecurity Early College Program students.

AA Degree/Certificate

Five Year Program							
9th	10th	11th Fall	11th Spring	12th Fall	12th Spring	13th Fall	13th Spring
English 9	English 10	English 11	English 11	English 121	Art 101 or 102	Literature Core	Humanities Core
Algebra I	Geometry	Algebra II	Algebra II	MATH 138 or 143**	Math 141**	Social and Behavioral Sciences Core	Social and Behavioral Sciences Core
US History	American Government	World History	World History	CSCO 292 Routing and Switching Essentials	CMSY 164 Intro. to Intrusion Detection and Prevention Systems	CMSY 263 Ethical Hacking and Cyber Defense	CMSY 255 - Introduction to Unix and Linux
Earth Science	Biology	Chemistry	Chemistry	CMSY 163 Intro. to Firewalls and Network Security Systems	CMSY 262 Encryption and Secure Comm.	Science Core	Science Core
World Language I	World Language II	Elective	Elective	Leadership I at the ARL	Leadership II at the ARL	COOP 201 - Cooperative Education Work Experience I	SPCH 105 - Fundamentals of Public Speaking
Tech Ed. Course	CRD I at the ARL	CMSY 162 - Intro. to Network Systems	CMSY 172 Intro. to Prog. with JavaScript	<input type="checkbox"/> HCC courses for high school and college credit <input type="checkbox"/> High school courses <input type="checkbox"/> HCC courses at the ARL <input type="checkbox"/> HCC courses at HCC			
PE/Health	CRD II at the ARL	CMSY 158 Fundamentals and Practice for Network + Certification	CSCO 291 Introduction to Networks				

* Course counts for high school graduation and college credit

** Placement in Math sequence determined by Accuplacer

General Information

Early College Program

College Credit

Students who successfully complete the Network Security Early College Program will receive their high school diploma and may complete up to 40 college credits by the end of their senior year. During the fifth year, cohort students will have the opportunity to complete required general education and major courses required for the A.A. Degree in Network Security, an associates degree that prepares them for transfer to a number of Maryland institutions offering baccalaureate degrees in IT-related majors.

Students are responsible for paying a portion of the tuition cost and all fees for Howard Community College courses that they take for credit as part of this program. Contact the school counselor at the Applications and Research Laboratory for additional information.

Industry Certifications

Upon successful completion of MFST 299 – Fundamentals and Practice for Network+ Certification, taken at the ARL during their junior year, students will be prepared to take the CompTIA Network+ exam. Students may take the CompTIA Security+ certification exam after successful completion of CMSY 162 Introduction to Network Security Systems taken at the ARL during their senior year.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Help Desk Technician	Network Administrator	Network Engineer
Network Technician	Internet Systems Admin.	Network Analyst
Service Center Technician	Network Design Specialist	Internet Security Analyst
IT Cable Installer	LAN Specialist	Systems Architect

***Taking college courses while in high school
is another way to challenge yourself
and prepare for a rigorous college experience.***

General Information

Early College Program

STEM

This early college program at Oakland Mills High School is designed for students who are interested in the fields of science, technology, engineering, or mathematics (STEM) and in earning a college degree. Successful students will earn their high school diplomas and an associate degree within one year of graduating from high school. This means an advance start on a career or a faster path to a bachelor's degree.

The demand for highly trained STEM professionals has been growing, and students are finding that these skills are in demand by businesses and organizations large and small. According to the President's Council of Advisors on Science and Technology, "the number of STEM degrees earned must increase by about 1 million over the next decade" for the nation to maintain its STEM prominence.

The Early College STEM program offers flexibility for students who are confident in the career they want to pursue, as well as those students who are still exploring. For instance, a student may select a science focus and prepare for future careers in science, pharmaceuticals, medicine, and more, or a student may select an education focus and prepare for future certification in math or science education.

Starting in the 9th grade, students will be engaged in college-preparation coursework and will begin participating in classes with their Early College cohort, a small group of college-bound high school students with the same educational focus. They will continue to take their courses at Oakland Mills High School. The school will identify their aptitudes and abilities, and apply that knowledge to career and college exploration. In 10th grade, students will participate in the Howard Community College First Year Experience course at Oakland Mills High School to prepare students for the rigor of college which will be embedded within the English course the student is enrolled in.

In the 11th grade, students will take a few Howard Community College courses at Oakland Mills High School including the appropriate level mathematics and English courses. By their senior year, students will take almost all of their courses at Howard Community College, and transportation will be provided between Oakland Mills High School and HCC.

Students will meet HCPSS graduation requirements within the course sequence.

Once students successfully graduate from high school, they will have already earned 30 college credits, and they can attend HCC full time as a second-year student. At HCC, students will work toward the final 30 credits necessary to earn their associate degree, which is a two-year college degree. In addition, students will have opportunities to participate in internships and to receive one-on-one support for resumes, job interviews, and transfer preparation.

Throughout their final year of the Early College STEM program, students will receive assistance from an advisor in selecting the best four-year college or university for their future education. The advisor will connect students to the resources and any additional support necessary to ensure success.

At the conclusion of the final year, students will have earned an associate degree and will have the opportunity to celebrate their success at the Howard Community College commencement ceremony in May.

In 10th grade, students will enroll in the following HCC courses:

- FYEX-100 First Year Experience - this course provides a highly interactive, critical thinking experience to help students understand themselves as independent learners, successful workers, and civic/global citizens.

In 11th grade, students will enroll in the following HCC courses at Oakland Mills High School:

- Either MATH-143 Pre-calculus I and MATH-153 Pre-calculus II or MATH-181 Calculus and MATH-182 Calculus II, depending on the appropriate mathematics level
- If students are enrolled in Pre-calculus, they will also enroll in HEED-106 Introduction to Stress Management – HEED-106 is designed to provide students with a basic understanding of the concepts of stress management and the application of these concepts to personal stress management.
- ENGL-121 College Composition

In 12th grade, students will enroll in the following HCC course to meet the English graduation requirement:

- ENGL-210 Introduction to Fiction, Poetry, and Drama

Due to the number of options for a student pursuing STEM careers, each student's pathway may be different.

General Information

SAT Subject Tests

Many colleges use the SAT Subject Tests for admission, for course placement, and to advise students about course selection. Some colleges specify the SAT Subject Tests they require for admission or placement; others allow applicants to choose which tests to take. All SAT Subject Tests are one hour, multiple-choice tests. However, some of these tests have unique formats. The tests are designed to measure students' knowledge and skills in particular subject areas, as well as their ability to apply that knowledge. Students take the SAT Subject Tests to demonstrate to colleges their mastery of specific subjects. The tests are independent of any particular textbook or method of instruction. *Students have found that they are more successful on the SAT Subject Tests if they are taken after completion of the most closely related high school course.* Use the following information to assist you in knowing the optimal time to take the test if you may attend a college that requires a SAT Subject Test.

Name of SAT Test	Information	Related High School Course
English Literature	The Literature subject test measures how well you have learned to read and interpret literature. There is no reading list for this test. The best way to prepare for the test is through close critical reading of English and American literature to become skilled in understanding and analyzing literary text.	Best taken after having completed English 11.
U.S. History	The United States History subject test assesses your knowledge of and ability to use material commonly taught in U.S. History and social studies courses in high school.	Best taken after having completed U.S. History AP in grade 11.
World History	The World History Subject Test uses the chronological designations B.C.E. (before Common Era) and C.E. (Common Era). These labels correspond to B.C. (before Christ) and A.D. (anno Domini), which are used in some world history textbooks. Questions on the World History Subject Test may be presented as separate items or in sets based on quotes, maps, pictures, graphs or tables. Please note that this test reflects what is commonly taught in high school. Due to differences in high school classes, it's likely that most students will find questions on topics they're not familiar with. Many students do well despite not having studied every topic covered.	Best taken after having completed Modern World History in grade 11.
Mathematics Level 1	Mathematics Level 1 is a broad survey test intended for students who have taken three years of college preparatory mathematics, including two years of algebra and one year of geometry .	Best taken after having completed Algebra II or Trigonometry – Honors or Mathematical Analysis – Honors, Pre-Calculus G/T.
Mathematics Level 2	Mathematics Level 2 is a broad survey test intended for students who have taken college preparatory mathematics for more than three years, including two years of algebra, one year of geometry, and pre-calculus and/or trigonometry. It is recommended that if the student has had these courses and attained grade of B or better and knows when and how to use a scientific or graphing calculator, he or she should select Mathematics Level 2.	Best taken after having completed Trigonometry – Honors or Mathematical Analysis – Honors, Pre-Calculus G/T.

General Information

Name of SAT Test	Information	Related High School Course
Biology E/M	This test contains a common core of 60 general-knowledge multiple-choice questions, followed by 20 multiple-choice questions that emphasize either ecological (Biology E) or molecular (Biology M) subject matter. After completing the core questions, test takers choose the section for which they feel most prepared. Take Biology E if you are more comfortable answering questions pertaining to biological communities, populations and energy flow. Take Biology M if you are more comfortable answering questions pertaining to biochemistry, cellular structure and processes such as respiration and photosynthesis.	Best taken after having completed Biology or Anatomy and Physiology or Biology AP.
Chemistry	The chemistry test assesses the understanding of general chemistry at the college preparatory level. The one-hour test contains 85 multiple-choice questions with approximately five questions on equation balancing and/or predicting the product of a reaction interspersed throughout the test. Topics tested include: Structure of Matter – Atomic Structure, Molecular Structure, and Bonding States of Matter – Gases, Liquids and Solids, and Solutions Reaction Types – Acids and Bases, Oxidation-Reduction, and Precipitation Stoichiometry – Moles and Chemical Equation Equilibrium and Reaction – Equilibrium Systems and Rates of Reactions Thermochemistry Laboratory Skills and Processes	Best taken after having completed Chemistry.
Physics	The physics test assesses the understanding of physics at the college preparatory level. The one-hour test contains 75 multiple-choice questions with some problem solving using basic algebra. Calculator use is not permitted during the test. Topics tested include: Mechanics – Kinematics, Dynamics, Energy and Momentum, Circular Motion, Simple Harmonic Motion, and Gravity Electricity and Magnetism – Electric Fields, Forces, and Potentials, Capacitance, Circuit Elements and DC Circuits, and Magnetism Waves and Optics – General Wave Properties, Reflection and Refraction, Ray Optics, and Physical Optics Heat and Thermodynamics – Thermal Properties and Laws of Thermodynamics Modern Physics – Quantum Phenomena, Atomic, Nuclear and Particle Physics, and Relativity	Best taken after having completed Physics.

Information taken from the College Board (www.collegeboard.com) and compiled by the Office of School Counseling.

General Information

Name of SAT Test	Information	Related High School Course
World Language Tests: French, German, Modern Hebrew, Italian, Japanese, Korean, Latin, Spanish and Chinese	These tests are intended for students who have studied the language for at least two years in high school. Generally, the more years of study the student has, the better his or her language test score is likely to be. In considering whether to take a reading test or a listening test in the language, there is no difference in difficulty between the two tests. However, the tests with listening can provide a more complete picture of a student's skills. For this reason, colleges may prefer the listening test to the reading only test for placement purposes. Native speaker scores are grouped with those students who have had less exposure to the language. This means that even students with high grades in language courses may not score as high as native speakers. College admission staffs take this into account when they review scores.	Best taken after having completed Level III or IV of the language.

Information taken from the College Board (www.collegeboard.com) and compiled by the Office of School Counseling.

Fee Waivers

Participation in the Free and Reduced Meals Program qualifies students for:

- Reduced Tuition for HCPSS Summer School
- Reduced Registration for Advanced Placement Exams
- Free Registration for two SAT I and two SAT Subjects Tests
<http://sat.collegeboard.com/register/sat-fee-waivers>
- Free Registration for two ACT Tests
<http://www.actstudent.org/faq/answers/feewaiver.html>
- Free tuition to take college courses at Howard Community College while still enrolled in high school
- Four Free College Applications
<http://sat.collegeboard.com/register/sat-fee-waivers>
- Qualification for the Guaranteed Access Grant (full tuition at a Maryland College)
http://www.mhec.state.md.us/financialAid/ProgramDescriptions/prog_ga.asp
- Free Registration for the NCAA Eligibility Center for students considering Division I or Division II Athletics
http://webI.ncaa.org/ECWR2/NCAA_EMS/NCAA.html

See the National School Lunch Program/School Breakfast Program Application for income eligibility guidelines. Applications can be mailed to the address on the back of the form or returned to school with your student.

See your school counselor to access any of the above resources.



Career Academies

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 four 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:

- 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.

What are the benefits of joining a Career Academy?

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.

How do I become a member of a Career Academy?

Any student may be part of a single Career Academy. To become a member of an academy, meet with the school counselor to discuss your decision. This can be done at any time or during the course registration process. When completing the **Course Registration** form for the upcoming school year, indicate the name of the Career Academy you would like to join by filling in the portion of the form that asks for your intended Program Choice(s). The school counselor will work with you to develop or revise your four-year plan so that you will be able to successfully complete all requirements listed in this catalog for the Career Academy.

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 and prerequisite 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

General Information

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

School-based Career Academy programs (Accounting Academy, Marketing Academy, Culinary Science Academy, Child Development Academy, Computer Programming, Teacher Academy of Maryland, Engineering: Project Lead the Way Academy) are offered based on course enrollment at each high school. The Howard County Public School System is committed to offering students who begin work in a Career Academy the opportunity to complete the entire academy program, whenever possible. Check with the school counselor to determine the availability of Career Academy programs in your school.

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, or the Career Academy Instructional Team Leader at your high school.

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. If you successfully complete a specific Career Academy, you may earn college credits and start your college education with advanced standing. In addition, many of the Career Academies prepare students to take industry certification examinations affiliated with the industry. By successfully passing these examinations, you will be better prepared to enter the world of work ready to succeed.

What do I do next?

If you are entering grades 9 or 10, you should make sure that the courses associated with your Career Academy of choice are part of your four-year high school plan and you should be sure to complete the required prerequisites prior to beginning academy courses. If you are entering grade 11, you should make sure that you have successfully completed the required prerequisites and that you are registered for the courses associated with the career academy of your choice. Contact your 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 your school counselor. If you have other questions, call the Office of Career and Technology 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

- Microeconomics/Macroeconomics AP
- Business Calculus - G/T
- Principles of Marketing - 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 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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Elective	Elective
Fine Arts	Elective	Elective	Business Design and Development G/T 568M
Technology Education	Principles of Business and Management 551M	Principles of Accounting and Finance – Honors 561M	Advanced Accounting – Honors 560M

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

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 The 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: Academy coursework is 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 tenth grade, students learn and apply the engineering design process through coursework in Aerospace I G/T, which includes course material from PLTW Engineering Design and Principles of Engineering courses. In eleventh grade, students extend their knowledge of the engineering design process in Aerospace II G/T, which includes course material from Digital Electronics, Aerospace Engineering and 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

Students seeking postsecondary education are advised to take at least two years of World Language. Students seeking degrees in Engineering are also advised to enroll in Physics and Chemistry.

Prerequisites

Aerospace Engineering Academy students must enter the program in the tenth grade and must be concurrently enrolled in 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
Earth and Space Science	Biology**	Chemistry	Physics
U.S. History	American Government	World History	Elective
World Language	World Language	Aerospace II G/T 68901 at the ARL. Registration is available for the first time in the 2016-2017 school year.	Elective
Fine Arts	* Aerospace I G/T 688M at the ARL. Registration is available for the first time in the 2015-2016 school year.		Elective
Lifetime Fitness/Health			Elective

* Meets Technology Education graduation requirement

** Some students may take Biology G/T in 9th grade.

Shaded areas designate academy coursework.

Aerospace Engineering: Project Lead the Way (PLTW) Academy

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

Architectural Design Academy

Location: Academy coursework is 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

Students seeking postsecondary education are advised to take at least two years of World Language. Students seeking degrees in Architectural Design are also advised to enroll in Physics and Chemistry as science electives.

Prerequisites

Students should be enrolled in Algebra I as a *minimum* level mathematics course in the 9th grade.

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	Elective	Advanced Architectural Design 679M
Lifetime Fitness/Health	Elective	Architectural Design 678M	
Technology Education	Elective		

Shaded areas designate complete coursework.

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.

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

It is recommended that students complete Algebra II as part of their mathematics requirements in preparation for automotive technology coursework.

Prerequisites

None

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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Fine Arts	Automotive Technology I 856M	Automotive Technology II 857M
Technology Education	Elective		
Elective	Elective	Elective	

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

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 The Community College of Baltimore County (CCBC) or Pennsylvania College of Technology.

Industry Certification

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

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

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 Advanced Placement Biology, Chemistry and advanced mathematics electives.

Prerequisites

- Biology

Corerequisites

- Chemistry
- 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.

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	Biology*	Chemistry	Science Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts	Biotechnology I G/T 835M	Biotechnology II G/T 839M
Lifetime Fitness/Health	Elective		
Elective	Elective	Elective	

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

Biotechnology Academy

College Credit

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

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

Career Research and Development

Location: All coursework is taught at the high school.

Summary

Career Research and Development is an approved Career and Technology 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

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.

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.

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
Earth Science	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Elective	CRD II 6881
Lifetime Fitness/Health	Elective	Elective	Site-Based Work Experience 6885 -- 2 credits 6886 -- 3 credits 6887 -- 4 credits
Fine Arts	Elective	CRD I 6880	

* Some students may take Biology G/T as 9th graders.

Shaded areas designate completer coursework.

Industry Certification

The Howard County Chamber of Commerce offers students the opportunity to apply for a **Passport to the Future**, a countywide certificate which endorses students as workforce ready. Students who earn the Passport may have access to career incentive programs, scholarships, and entrance to higher education and certification programs.

Sample Assessments/Inventories

Myers-Briggs Personality Inventory

Multiple Intelligences

Bridges/CX online

Holland Self-Directed Search

Armed Services Vocational Assessment Battery

Child Development Academy

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

Summary: The Child Development Academy is designed for students who intend to pursue a career working with young children. Academy students have the opportunity to conduct formal observations, develop and deliver lesson plans, and participate in special events and activities with either an on-site or nearby childcare or preschool facility. Academy coursework focuses on development and learning theory, positive and effective discipline, methods for guiding children to reach physical, social, and emotional benchmarks, and the creation of developmentally appropriate curriculum and learning environments. Students in the Child Development Academy will have the opportunity to participate in pre-professional development activities including visits to preschools, pediatric medical settings, and recreation programs designed for young children, partnering with community organizations serving young children, and attending conferences and workshops sponsored by and designed for early childhood educators.

Recommended Electives

Child Development Academy students are advised to take at least two years of Spanish as preparation for working in diverse preschool and childhood development settings. In addition to enrolling in the 9th grade in Art I to satisfy the Fine Arts graduation requirement, Child Development students should pursue additional Fine Arts electives such as Introductory Dance, Musical Theatre, Stage Craft, Chorus/Concert Choir and Piano.

Prerequisites

Although no specific courses are required as prerequisites, students should seek volunteer or paid experience working with young children as confirmation of their career academy choice.

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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Elective	Elective
Lifetime Fitness/Health	Food and Nutrition Technology 6510	Elective	Elective
Fine Arts	Human Growth and Development - Honors 658M	Foundations of Curriculum and Instruction 6535	Field Experience in Education (Child Development Academy) 6571 - 6572 - 6573

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

College Credit

Students who successfully complete the Child Development Academy program sequence, with a grade of B or higher in academy courses, may be eligible for credits at Howard Community College. To receive credit, students must enroll in one of the following: Associate in Arts; Associate of Arts in Teaching transfer degree programs in Early Childhood or Elementary Education; or certificate program in Early Childhood Development.

Industry Certification

During their field placement all Academy students will be encouraged to take 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 Center Owner/Director		Children's Author	Child Psychologist
Family Day Care Provider		Early Childhood Teacher	Guidance Counselor
Instructional Assistant		Elementary Teacher	Pediatric/Obstetrics Nurse
Childcare Worker	Classroom Aide	Parent Educator	Social Worker | Speech Therapist

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

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	Biology*	Science	Science Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Elective	Elective
Fine Arts	Elective	Elective	Advanced Data Structures G/T 471M
Technology Education	Principles of Java Programming G/T 46001	Computer Science A-AP 465M	Advanced Object Oriented Design G/T 472M

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

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 Management Academy

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

Summary

The Construction Management 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 Management Academy provides students with an excellent foundation for continuing education in the building industry.

Recommended Electives

Students planning to attend a four-year, postsecondary institution are advised to take at least 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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Fine Arts	Elective	Construction Technology I 854M	Construction Technology II 858M
Lifetime Fitness/Health	Elective		
Technology Education	Elective		

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

College Credit

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

Industry Certification

Students can pursue a construction apprenticeship in postsecondary programs or complete 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

The industry advisory committee recommends students complete at least two years of Spanish in preparation to enter the culinary industry.

Prerequisites

While no specific courses are required as prerequisites, students should seek food service and hospitality work experiences to confirm their career academy choice.

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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Elective	Elective
Lifetime Fitness/Health	Elective	Elective	Business Course** or Culinary Internship 6528 - 1 credit or 6529 - 2 credits
Fine Arts	Food and Nutrition Technology 6510	Culinary Sciences 6525	Advanced Culinary Science and Restaurant Operations 657M

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

**Choose from Principles of Business and Management (551M), Principles of Accounting and Finance – Honors (561M), or Principles of Marketing Honors (565M).

Culinary Science Academy

College Credit

Through a special partnership with Howard Community College's Center for Hospitality and Culinary Studies, seniors enrolled in Advanced Culinary Science and Restaurant Operations (657M) are eligible to be dually enrolled in the three-credit college course, Food Prep I (HMGT120).

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, Baltimore International College, L'Academie de Cuisine, 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) and the American Hotel and Lodging Association Educational Foundation (www.ahlef.org).

Industry Certification

Upon completion of the capstone course, Culinary Academy students will be eligible to take examinations for ProStart and for ServSafe, the food safety and sanitation certification required for entry-level employment.

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

The PC Systems 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.

Prerequisites

- Algebra I prior to enrollment in academy coursework.

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 Requirement	Biology*	Chemistry	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Computer Networking I G/T 454M OR PC Software and Hardware 4561	Computer Networking II G/T 456M OR Networking Essentials-457M Honors
Lifetime Fitness/Health	Elective		
Elective	Elective	Elective	

* Some students may take Biology G/T in 9th grade.

Shaded areas designate academy coursework.

Senior Level Coursework Options: Computer Networking Pathway

- Students will complete CISCO certified coursework and take the Cisco Certified Network Engineer Technician (CCENT) exam and have the option to take the Cisco Certified Network Administrator (CCNA) and the CompTIA Security + certification exams.
- Students will complete Cyber Watch coursework.

Cybersecurity Networking Academy

Senior Level Coursework Options: PC Systems Pathway

- Students will complete CISCO certified coursework and take the CompTIA A+ certification exam. Students will also have the option to take the Cisco Certified Network Engineer Technician (CCENT) and CompTIA Security + certification exams.
- Students will have the option of completing a worksite experience in a computer repair or networking field.

College Credit

Students who successfully complete all Computer Networking pathway (454M and 456M) coursework with a grade B or higher, are eligible for credits at Howard Community College.

Students who successfully complete all PC Systems pathway (4561 and 457M) 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 Cisco Certified Network Engineer Technician (CCENT), Cisco Certified Network Administrator (CCNA), and the CompTIA Security + certification exams.

Upon completion of the PC Systems pathway experience, students will be prepared to take the CompTIA A+, Cisco Certified Network Engineer Technician (CCENT) and CompTIA Security + certification exam.

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

Students seeking postsecondary education are advised to take at least two years of World Language. Students seeking degrees in Engineering are also advised to enroll in Physics and Chemistry.

Prerequisites

Engineering Academy students must enter the program in the ninth grade. Ninth grade students take Introduction to Engineering Design and must be concurrently enrolled in Algebra I as a *minimum* level mathematics course.

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.

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>)

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	Elective	Elective
Lifetime Fitness/Health	Fine Arts	PLTW Digital Electronics G/T 68601	Elective
PLTW Engineering Design G/T 681M (Technology Education Graduation Credit)	PLTW Principles of Engineering G/T 68001	PLTW Computer Integrated Manufacturing G/T 68501	PLTW Engineering Design and Development G/T 68701

Shaded areas designate completer coursework.

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	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.
- Successfully complete a pre-selected college-level course during 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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Elective	Academy of Finance II G/T 567M
Fine Arts	Elective	Academy of Finance I G/T 566M	
Technology Education	Elective		

* Some students may take Biology G/T in 9th grade.

Shaded areas designate complete coursework.

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

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

Chemistry (grade 11) and Anatomy and Physiology (grade 12) are highly recommended. Additionally, Advanced Placement Biology is beneficial as a science elective in grade 12 for students in this academy.

Prerequisites

- Biology and 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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Elective	Clinical Research in Allied Health - Honors 87601 (3) Or Certified Nursing Assistant: Theory and Clinical 6896 (3) Or Emergency Medical Technician: Basic and Clinical 6888 (2)**
Technology Education	Fine Arts	Foundations of Health Care – Honors 84101 (2)	
Elective	Elective		

* Some students may take Biology G/T in 9th grade.

** Students in the Emergency Medical Technician pathway must select one additional elective.

Shaded areas designate academy coursework

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 respiratory, cardiac and trauma emergencies. The classes provide classroom and clinical experiences. The Emergency Medical Technician Academy is the result of a three-way partnership between Howard County Public Schools, Howard County Department of Fire and Rescue Services, and Howard Community College (HCC). This academy serves as a prerequisite for coursework in the Emergency Medical Services Program at Howard Community College.

Prior to admission to the academy, students must complete an application to the EMT academy and interview by Fire and Rescue staff. A physical examination must also be completed prior to acceptance. (Note: EMT is limited to 25 students per year/class.)

Successful Academy Students:

- Complete state-mandated attendance and performance standards during the program. To meet the 165 hours of required content level classwork, students will need to participate in additional scheduled class sessions.
- 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 clinical hours and 5 pre-hospital calls after school and on weekends.
- Provide own transportation to all clinical experiences.

Health Professions, Academy of

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 EMT-B certification requirements, students will begin college level coursework at HCC. The Emergency Medical Services Program at HCC is a two-year, Associates of Applied Science – Paramedic curriculum.

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

Homeland Security and Emergency Management Academy

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

Summary

The Homeland Security and Emergency Management Academy outlines the essential characteristics of national and international acts of terrorism and the roles, functions of, and interdependency between local, federal and international law enforcement, intelligence and military agencies. Students will learn how effective strategies are developed to generate information necessary for intelligence and law enforcement organizations to make timely, effective and efficient decisions for homeland security policies and operations. The curriculum will focus on examining the global and national issues and policies concerning terrorism and homeland security and how different technologies are employed for general and critical legal research, writing and case management. Additionally, students will demonstrate proficiency in communication, problem solving, and team building skills and explore career opportunities in the areas of homeland security.

Recommended Electives

Students would benefit from taking at least two years or more of World Languages.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Complete senior level coursework through a capstone project and take the Spatial Technology and Remote Sensing (S.T.A.R.S.) certification exam.
- Practice making responsible decisions to be better prepared for security clearance and background checks required in homeland security career fields.

Homeland Security and Emergency Management Academy

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 Requirement	Biology*	Chemistry	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Elective	Advanced Geographic Information Systems and Remote Sensing 823M
		Foundations of Homeland Security and Emergency Preparedness 821M	
Lifetime Fitness/Health	Elective	Geographic Information Systems and Remote Sensing 822M	Geospatial Applications Worksite Experience 824M
Elective	Elective		

* Some students may take Biology G/T in 9th grade.

Shaded areas designate academy coursework.

Industry Certification

Upon successful completion of all geographic information systems and remote sensing coursework students take the Spatial Technician and Remote Sensing (S.T.A.R.S.) exam to earn an Entry-level Geographic Information Systems (GIS) Technician certification.

College Credit

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

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
GIS Technician Surveying and Mapping Technician Computer Support Specialist Database Administrator	Emergency Management Technician Transportation, Storage, and Distribution Manager Network Systems and Data Communications Analyst Computer Information Systems Manager	Computer Systems Analyst Security Analyst

Hotel and Restaurant Management Academy

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

Summary

The Hotel and Restaurant Management Academy prepares students for professional careers in the third largest retail industry in the United States and one of the country's largest employers. One out of every eight Americans is employed either directly or indirectly to meet the needs of travelers to and within the United States, and these guests spend an average of \$1.64 billion daily on lodging, food, and leisure. This exciting industry includes career ladders in lodging, travel and tourism, airlines and cruise lines, sport and recreation, resorts and theme parks, and restaurants and food services. Students in the Hotel and Restaurant Management Academy will have opportunities to participate in industry-sponsored events and competitions and will receive individual mentoring from professionals in the hospitality industry.

Recommended Electives

The industry advisory committee recommends students enroll in a business elective and complete at least two years of Spanish in preparation to enter the hospitality industry.

Prerequisites

While no specific courses are required as prerequisites, students should seek hospitality work experiences to confirm their career academy choice.

Successful Academy Students:

- Maintain a C average in all academy coursework.
- Take Year One and Year Two Hospitality and Tourism Management examinations and complete a minimum of 100 hours of work experience in the lodging industry (required for students pursuing the Certified Hospitality and Tourism Management Professional (CHTMP) designation).

-OR-

- Pass Year One and Year Two ProStart examinations and complete 400 hours of mentored industry experience (required for students pursuing ProStart 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	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Introduction to the Hotel and Restaurant Management Industry 877M	Management and Leadership in Hotels and Restaurants 880M
Lifetime Fitness/Health	Elective		
Fine Arts	Elective		

Shaded areas designate complete coursework.

Hotel and Restaurant Management Academy

College Credit

Through a special partnership with Howard Community College's Center for Hospitality and Culinary Studies, seniors enrolled in Management and Leadership in Hotels and Restaurants (880M) are eligible to be dually enrolled in two three-credit college courses, Introduction to the Hospitality Industry (HMGT101) and Food Prep I (HMGT120).

Students with passing scores on both Year One and Year Two ProStart Examinations and successful completion of coursework and industry hours may be eligible for articulated credit from a range of local and national colleges and universities including Howard Community College, Anne Arundel Community College, Widener University, and Johnson and Wales. The 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) and the American Hotel and Lodging Association Educational Foundation (www.ahlef.org).

Industry Certification

Upon completion of the second year course, students will be eligible to take the ProStart and Hospitality and Tourism Management examinations to document the skills and knowledge required for pursuit of a professional career path in the hospitality industry. Students will also have the opportunity to earn ServSafe certification.

Sample Career Options		
< 4-Year Degree	4-Year Degree	> 4-Year Degree
Concierge Convention Services Director of Security Event Planner Executive Housekeeper Front Desk Employee	Food Service Manager Outdoor/Nature Guide Reservations Agent/Manager Resort Professional Shift Supervisor Travel Counselor Tour Guide/Operator	Food Service Manager Front Desk Supervisor General Manager

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 and 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

- Micro Economics/Macro Economics - AP
- 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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Elective	Elective
Fine Arts	Elective	Principles of Accounting and Finance – Honors 561M	Elective
Technology Education	Principles of Business and Management 551M	Principles of Marketing – Honors 565M	Advanced Marketing - Honors 564M

* Some students may take Biology G/T in 9th grade.

Shaded areas designate complete coursework.

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 will focus on technical concepts including mechanical drawing, practical fabrication, electronics, mechanics, data acquisition, and analysis. Students will follow the engineering design process to work in teams to design, build, and test a single passenger electrically powered racecar or all-terrain wheelchair. Students will use computer-based design and modeling software when appropriate. Students will also learn practical fabrication skills, such as basic MIG welding and machining as necessary, to construct their portion of the experimental vehicle. Initially, vehicle prototypes will be tested and benchmarked through data collection.

Recommended Electives

Students planning to attend a four-year postsecondary institution are advised to take at least 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	Biology*	Chemistry	Elective
U.S. History	American Government	World History	Elective
Technology Education	Fine Arts Requirement	Systems Management Solutions G/T 860M	Systems Engineering Innovation G/T 864M
Lifetime Fitness/Health	Elective		
Elective	Elective	Elective	

* Some students may take Biology G/T in 9th grade.

Shaded areas designate complete coursework.

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.

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).

Prerequisites

Although no specific courses are required as prerequisites, students should seek volunteer or paid experience working with children as confirmation of their career academy choice.

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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Technology Education	Elective	Elective	Elective
Lifetime Fitness/Health	Elective	Foundations of Curriculum and Instruction 6535	Elective
Fine Arts	Human Growth and Development - Honors 658M	Teaching as a Profession - G/T 659M	Field Experience in Education (Teacher Academy) - G/T 660M, 661M, 662M

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

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 659M, are eligible to be dually enrolled in the three-credit college course, Introduction to Education (EDUC 110).

Students who are preparing for a career in Early Childhood or Elementary Teaching who earn a grade of B or higher in Child Development, Foundations of Curriculum and Instruction, and Teaching as a Profession may be eligible for up to 6 credits at Howard Community College. To receive this credit, students must enroll in one of the Associate in Arts transfer degree programs in Early Childhood or Elementary Education or in an Associate of Applied Science or certificate career program in Early Childhood Development. Students who are preparing for a career teaching in a secondary setting may earn 3 college credits for receiving a grade of B or higher in Teaching as a Profession. To receive this credit, students must enroll in a Secondary Education Associate of Arts degree.

Students who are preparing for a career in Early Childhood, Elementary or Secondary Teaching, who earn grades of B or higher in all four required Academy courses, may earn college credits from Towson University, Stevenson University, or Coppin State University.

Teacher Academy of Maryland

Industry Certification

Upon completion of the four required Academy courses including the internship, students may choose to take 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	Early Childhood Teacher	Child Psychologist
Daycare Center Owner/Director	Elementary Teacher	Guidance Counselor
Family Day Care Provider	High School Teacher	Pediatric/Obstetrics Nurse
Instructional Assistant/Aide	Parent Educator	School Administrator
Preschool Director	Preschool Teacher	Social Worker
Recreation Program Director		Speech Therapist

Visual Communications Academy

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

Summary

The Visual Communications Academy, which contains two pathways – Graphic Design and Animation and Interactive Media Production, is designed for students who have an interest in digital art. Students in both pathways 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.

The Graphic Design pathway emphasizes publication design, advertising, and web design. Concepts in illustration, digital imaging, and videography are also covered.

The Animation and Interactive Media Production pathway emphasizes narrative and non-narrative story telling, video production, 3D graphics and their applications in video games, animation, and architectural simulation.

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	Biology*	Science	Elective
U.S. History	American Government	World History	Elective
Lifetime Fitness/Health	Elective	Graphic Design I G/T 845M or Animation and Interactive Media I 81001	Advanced Graphic Design G/T 849M or Animation and Interactive Media 81101
Technology Education	Art I 6000		
Elective	Elective		

* Some students may take Biology G/T in 9th grade.

Shaded areas designate completer coursework.

College Credit

Students who successfully complete the Visual Communications 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 in the Visual Communications pathway have the opportunity to complete 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



Course Descriptions

Course Description Diagram

Course Number - 111

Course Identifiers - ♥ ★ ● ■

♥ - Weighted Class ● - High School Assessment Course ★ - NCAA Approved Course ■ - Digital Option

Weighted Class - ♥

State Assessed Course - ●

NCAA Approved Course - ★

Digital Education Option - ■

111 ♥●★■

English 10 – Honors

1 credit

Number of Credits - 1

Course Level - Honors

Course Title - English 10

Grade Eligible for Course - 10, 11, 12

330 ★

Algebra II

Grades 10, 11, 12

1 credit

Prerequisite: Algebra I/Data Analysis 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.

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

Course Description - Describes the content of a course.



Advanced Research

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.

195M♥ - I

196M♥ - II

197M♥ - 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.

191M♥ - (1 credit - grade 11 or 12)

192M♥ - (2 credits - grade 11 or 12)

193M♥ - (1 credit - grade 12)

194M♥ - (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 & Technology Education (CTE)

Career and Technology Education (CTE)

Career and Technology 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), Career Research and Development Program (CTE Completer Program), and 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.

Many CTE courses are offered at the local high school and others are offered only at the Applications and Research Laboratory. Course descriptions for courses offered at the local high school are organized by discipline: Business and Computer Management Systems; Career Research and Development; Family and Consumer Science; and Technology Education. Those courses which are offered only at the Applications and Research Laboratory are listed alphabetically.

CTE programs are articulated with local postsecondary institutions. Please see your school counselor for specific course and program credits.

Business and Computer Management Systems (BCMS)

The courses offered within Business and Computer Management Systems (BCMS) provide students the opportunity to develop the knowledge and skills necessary for working in the technology-based environments of today. The Career Academies Program includes one BCMS Academy which is affiliated with the National Academy Foundation (NAF). This academy is the Academy of Finance, which is offered only at the Applications and Research Laboratory. Course descriptions for this Centralized Career Academy are located in the Centralized Career Academies section of this catalog. In addition, the Career Academies Program includes three academies which are offered at the home high schools. These are the Accounting Academy, the Computer Programming Academy, and the Marketing Academy. Course descriptions for courses that make up the three school-based academies follow.

560M♥

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

Prerequisite: Principles of Accounting and Finance – Honors

Advanced Accounting and Finance – Honors 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.

471M♥

Advanced Data Structures - G/T **Grades 11, 12** **1 credit**

Prerequisite: Computer Science A-AP

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.

564M♥

Advanced Marketing - Honors **Grades 11, 12** **1 credit**

Prerequisite: Principles of Marketing – Honors

Advanced Marketing – Honors is an advanced level course that provides students with a comprehensive study of marketing, management, sales and merchandising. Students will approach the content from the perspective of a marketing professional, gaining experiences related to merchandising, sales promotion, marketing research and organizing and implementing a large-scale marketing plan. Additional topics include marketing in a global economy.

472M♥

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.

Business and Computer Management Systems (BCMS)

568M♥

Business Design and Development - G/T

Grades 11, 12

1 credit

Prerequisites: Principles of Business and Management, Principles of Accounting and Finance – Honors

The accounting and finance capstone class enables students to integrate accounting and finance concepts in a comprehensive project that bridges theory and practice. This is a student-centered course, with teachers serving as guides who help facilitate student learning. Use of planning, organizational, and time management skills is crucial. Capstone projects can take many forms, including research papers, simulations, or presentations that may be given before a panel.

465M♥★■

Computer Science A - AP [AP Computer Science]

Grades 10, 11, 12

1 credit

Prerequisite: Principles of Computer Science G/T

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 also be used as a math credit to fulfill graduation requirements.

450M♥

Exploring Computer Science - Honors

Grades 9, 10, 11, 12

1 credit

(Technology Education Graduation Credit)

Co-requisite: 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.

4530

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.

561M♥

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.

551M

Principles of Business and Management

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 introductory level course prepares students for entry-level positions in business upon graduation from high school or continuing studies in business at the college level. The student may earn credits at Howard Community College.

46001♥

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.

565M♥

Principles of Marketing - Honors

Grades 11, 12

1 credit

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.

47301♥

Computer Science Principles - AP

Grades 9, 10, 11, 12

1 credit

(Technology Education Graduation 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.

Career Research and Development

Career Research and Development (CRD) is an approved Career and Technology Education Program that meets the CTE graduation requirement if taken in the sequence of CRD I, CRD II, and Site-Based Work Experience. Students who successfully complete the CRD program, with a grade of B or higher in the CRD course sequence, may be eligible for up to three credits at Howard Community College. CRD I may also be taken as a general elective for those students not pursuing a CTE graduation pathway.

6880

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 mathematics 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, a partnership with the Howard County Chamber of Commerce.

6881

Career Research and Development II

Grade 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 mathematics 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.

6885 - (2 credits)

6886 - (3 credits)

6887 - (4 credits)

Site-based Work Experience

Grade 12

2-4 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 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.

Engineering and Technology Education

In a society that is dependent upon technology, it is important that all students develop technological literacy. The National Standards for Technological Literacy define a body of knowledge for the study of technology. This includes the study of topics such as: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and The Designed World. In order to meet or exceed these standards along with the Maryland state outcomes for Technology Education, Howard County offers a comprehensive program in Technology Education. Certain combinations of these courses will also satisfy the Advanced Technology credit option for graduation.

The following courses meet the Technology Education Graduation Requirement:

684M

Engineering Design

Grades 10, 11, 12

1 credit

(Technology Education Credit)

This course provides a foundation for a variety of engineering and technical career fields, such as mechanical, electrical, civil, and aerospace engineering. Topics may include simple and complex machines, electricity and electronics, structural design and analysis, and thermodynamics. Students will solve engineering problems through mechanical drawing, prototype construction, and testing in a multi-sensory laboratory setting.

6751■

Foundations of Technology

Grades 9, 10, 11, 12

1 credit

(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.

The following two courses meet the Advanced Technology Education Credit:

676M

Advanced Design Applications

Grades 10, 11, 12

1 credit

(Advanced Technology Education Credit)

Prerequisite: Technology Education Graduation Requirement

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, design, fabricating, and engineering practical solutions to a variety of problems.

677M

Advanced Technological Applications

Grades 10, 11, 12

1 credit

(Advanced Technology Education Credit)

Prerequisite: Technology Education Graduation Requirement

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, design, fabricating, and engineering practical solutions to a variety of problems.

Engineering and Technology Education

68501♥

PLTW Computer Integrated Manufacturing (CIM) - G/T

Course is part of the Engineering: Project Lead the Way (PLTW) Academy

Grades 10, 11, 12

1 credit

Prerequisites: Principles of Engineering; Algebra II (330M) is the minimum mathematics requirement

Computer Integrated Manufacturing (CIM) is a course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design and uses computer-controlled equipment to produce actual models of three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

68601♥

PLTW Digital Electronics (DE) - G/T

Course is part of the Engineering: Project Lead the Way (PLTW) Academy

Grades 10,11, 12

1 credit

Prerequisite: Principles of Engineering; Algebra II (330M) is the minimum mathematics requirement

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

68701♥

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

Course is part of the Engineering: Project Lead the Way (PLTW) Academy

Grade 12

1 credit

Prerequisites: Computer Integrated Manufacturing; Digital Electronics

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.

681M♥

PLTW Engineering Design G/T

Course is part of the Engineering: Project Lead the Way (PLTW) Academy

Grades 9, 10

1 credit

(Technology Education Credit for students in Project Lead the Way who entered grade 9 in or after 2013)

Prerequisite: Must be concurrently enrolled in Algebra I as a *minimum* mathematics requirement.

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.

68001♥

PLTW Principles of Engineering (POE) - G/T

Course is part of the Engineering: Project Lead the Way (PLTW) Academy

Grades 10, 11

1 credit

(Technology Education Credit for students in Project Lead the Way who entered grade 9 before 2013)

Prerequisites: PLTW Engineering Design G/T; Geometry is the *minimum* math requirement

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.

Family and Consumer Sciences

Family and Consumer Sciences is an interdisciplinary study providing students hands-on activities to develop the technical, critical thinking, problem solving, decision-making, and interpersonal skills that will empower them to manage the challenges of living and working in a diverse society. Four high school Career Academy Programs are offered under Family and Consumer Sciences: Child Development, Culinary Science, Hotel and Restaurant Management, and the Teacher Academy of Maryland (TAM). Course descriptions for the Hotel and Restaurant Management Academy are included in the ARL-based academy section of this catalog. Course descriptions for courses that make up the three school-based academies follow.

657M

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.

6528 - (1 credit)

6529 - (2 credits)

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 180 hours of mentored work experience toward the 400 hours required to earn the nationally-recognized ProStart Certificate of Achievement.

6525

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.

6571 - (1 credit)

6572 - (2 credits)

6573 - (3 credits)

Field Experience in Education (Child Development Academy)

Grade 12

1-3 credits

Prerequisite: Successful completion of or concurrent enrollment in Foundations of Curriculum and Instruction. Required for the Child Development Academy, this site-based course offers individual placement in a school, childcare center, or other setting related to the care and education of children. Students will have the opportunity to apply and extend their knowledge of children's physical, intellectual, emotional and social development under the supervision of a professional in the field of childcare and development. At the culmination of this course, students will present for juried review a portfolio that includes reflection and documentation of their growing knowledge and skills. Students must provide their own transportation to the work site.

660M♥ - (1 credit)

661M♥ - (2 credits)

662M♥ - (3 credits)

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

Grade 12

1-3 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.

Family and Consumer Sciences

6510

Food and Nutrition Technology

Grades 9, 10, 11, 12

1 credit

Practical activities in the laboratory provide the student with in-depth experiences in cooking techniques and principles of basic food preparation. This introductory experience is combined with instruction in management, consumerism, and nutrition. This course offers students the opportunity to choose and prepare healthy meals either as an individual or as a first step in preparation for a career in the restaurant and hospitality industries.

6535

Foundations of Curriculum and Instruction

Grades 10, 11, 12

1 credit

The second course in the Child Development and Teacher Education Academies, Foundations of Curriculum and Instruction, 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. Students who complete Human Growth and Development Development and Foundations of Curriculum and Instruction with a B or higher may be eligible for college credits at Howard Community College.

6556

Foundations of Fashion and Interior Design

Grades 9, 10, 11, 12

1 credit

This Fine Arts course is designed for students who are interested in pursuing careers in either Fashion or Interior Design. It provides a foundation in the elements and principles of design, an overview of both the Fashion and Interior Design fields, and encourages the development of creative problem solving and drawing skills. Students may enroll in this course to fulfill the one-credit Fine Arts graduation requirement.

658M♥

Human Growth and Development - Honors

Grades 10, 11, 12

1 credit

The first course for students in the Child Development or Teacher Academies, Human Growth and Development 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.

659M♥

Teaching as a Profession - GT

Grades 11, 12

1 credit

Prerequisite: Human Growth and Development or permission of Teacher Academy instructor

Required for all Teacher Academy students, this course is for the student interested in a teaching career in any grade level from Early Childhood through high school. Class discussion and assignments will focus on the profession of teaching – its history, purposes, issues, ethics, laws, roles, and qualifications. 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.

Centralized Academy Courses

Offered ONLY at the Applications and Research Laboratory (ARL)

566M♥

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. (Academy of Finance)

567M♥

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. (Academy of Finance)

81101

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. (Visual Communications Academy)

679M

Advanced Architectural Design

Grade 12

3 credits

Prerequisite: Architectural Design

In this advanced course, students will deepen and apply their understanding of architectural design by designing several different types and styles of residential buildings using selected 3D modeling software. Students will develop complete sets of construction documents, electronic renderings, 3D animations and architectural models. Utilizing architectural specific software, students will create a full set of residential and or commercial plan cost estimates and prepare presentations in electronic format. (Architectural Design Academy)

849M♥

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 alike. Students may participate in an internship related to their career interests or may elect 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. (Visual Communications Academy)

823M

Advanced Geographic Information Systems and Remote Sensing

Grade 12

1 credit

Prerequisites: Foundations of Homeland Security and Emergency Preparedness and Geographic Information Systems and Remote Sensing

In this course students continue to learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students will learn and apply Spatial Analyst and 3D Analyst to gain a different perspective on their environment by modeling surfaces three dimensionally. Students will also learn methods of integrating external hardware to incorporate real time data from GPS units in order to accurately survey their community. This is the fourth and final course in the STARS Certification series. Students will use the Project Management Model to complete a capstone project and achieve a 70% or higher on the written STARS exam to become STARS certified. (Homeland Security and Emergency Management Academy)

688M

Aerospace I – G/T

Grades 10

2 credits

(Technology Education Credit)

Co-requisite: 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, such as Autodesk Inventor, 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 Engineering Design and Principles of Engineering. (Aerospace Engineering: Project Lead the Way (PLTW) Academy).

Centralized Academy Courses

68901

Aerospace II – G/T

Grades 11

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 actually 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.

81001

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. (Visual Communications Academy)

678M

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. (Architectural Design Academy)

856M

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. (Automotive Technology Academy)

857M

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. (Automotive Technology Academy)

835M♥

Biotechnology I G/T

Grades 11, 12

2 credits

Prerequisites: Biology; completion of or concurrent enrollment in Chemistry and Algebra II

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. (Biotechnology Academy)

839M♥

Biotechnology II G/T

Grade 12

3 credits

Prerequisite: Biotechnology I G/T

This course completes the Biotechnology Academy series. Students participate in laboratory research-based internships. Students complete at least 8-10 hours per week of work-site experience, attend weekly seminars, submit research papers and share findings in culminating end-of-year presentations. Off-campus students provide their own transportation to site-based placements. 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. (Biotechnology Academy)

Centralized Academy Courses

6880A

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 mathematic 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, a partnership with the Howard County Chamber of Commerce. (Early College Network Security Program)

6881A

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 mathematic 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. (Early College Network Security Program)

6896

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. (Academy of Health Professions)

87601

Clinical Research in Allied Health – Honors

Grade 12

3 credits

Prerequisites: Foundations of Health Care Honors.

Students will apply the knowledge and skills acquired in previous course work to the clinical setting by participating in a 6-8 hours per week mentorship experience in a chosen health care field. 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. Students must provide their own transportation to a mentor site.

454M♥

Computer Networking I G/T

Grades 11, 12

2 credits

Prerequisite: Algebra I

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 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. (Cybersecurity Networking Academy)

456M♥

Computer Networking II G/T

Grade 12

3 credits

Prerequisite: Computer Networking I G/T

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. (Cybersecurity Networking Academy)

854M

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. (Construction Management Academy)

Centralized Academy Courses

858M

Construction Technology II

Grade 12

3 credits

Prerequisite: Construction Technology I

This is the final required course to complete the Construction Technology Academy. Students participate in an internship related to their career interests. Students are required to complete at least 6-8 hours per week at the mentor site, attend weekly senior seminars, choose a “real world” problem to research and complete a senior project. Students provide their own transportation, or on-campus placements at the ARL are available. (Construction Management Academy)

6888

Emergency Medical Technician: Basic and Clinical

Grade 12

2 credits

Prerequisites: Foundations of Health Care - Honors.

The Emergency Medical Technician Basic (EMT-B) class will prepare students with the emergency skills to assess a patient's condition and manage respiratory, cardiac, and trauma emergencies. The class provides classroom and clinical experiences. A minimum of 10 clinical hours and 5 pre-hospital calls, as well as additional scheduled class sessions, is completed after school and weekends. If students do not complete clinical, they may still pass the class but not receive the completer. This is the first course in the high school Paramedic/Firefighter pathway. It serves as a prerequisite for coursework in the Emergency Medical Services Program at Howard Community College. (Academy of Health Professions)

821M

Foundations of Homeland Security and Emergency Preparedness

Grades 11, 12

1 credit

This course introduces students to Homeland Security and Emergency Preparedness guidelines, concepts, and action plans. Emphasis is placed on unique aspects of public safety and public health. The course explores the various methodologies for intelligence gathering and dissemination and introduces students to various local, state, and federal assets. Students will prepare an action plan that includes initial notification, emergency response (on and off scene), and recovery. (Homeland Security and Emergency Management Academy)

84101

Foundations of Health Care - Honors

Grades 11-12

2 credits

Prerequisite: Biology

This course provides students with an overview of health care 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.

822M

Geographic Information Systems and Remote Sensing

Grades 11, 12

1 credit

This class introduces students to Geographic Information System (GIS) and Remote Sensing (RS) technology through academic study and applied instruction. This course is the foundation of the STARS Entry-Level GIS Technician Certification. Students learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students are introduced to each skill with a real-world application and led in the problem solving process. Follow-up applied practice application will direct the student to apply acquired skills to cases in the local community using the supplied data. (Homeland Security and Emergency Management Academy)

824M

Geospatial Applications Worksite Experience

Grade 12

2 credits

Prerequisites: Foundations of Homeland Security and Emergency Preparedness and Geographic Information Systems and Remote Sensing

Students participate in an internship related to their career interests within geographic information systems career fields. Students are required to complete at least 6-8 hours per week at the mentor site, attend weekly senior seminars, submit research abstracts on real-world problems, and write reflection papers based on their project work. Students provide their own transportation or on-campus placements at ARL are available. (Homeland Security and Emergency Management Academy)

845M♥

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. (Visual Communications Academy)

Centralized Academy Courses

877M

Introduction to the Hotel and Restaurant Management Industry

Grades 11, 12

2 credits

This course introduces students to the career pathways within the rapidly growing Hospitality industry. Students will explore and develop the basic skills and knowledge needed for first level professional careers in hotels and resorts, restaurants and food services, parks and recreation, and travel and tourism. (Hotel and Restaurant Management Academy)

880M

Management and Leadership in Hotels and Restaurants

Grade 12

3 credits

Prerequisite: Introduction to the Hotel and Restaurant Management Industry

This course provides a comprehensive overview of hotel and lodging operations including the organizational structures, divisions and functions. These functions include human resources, sales and marketing, housekeeping, guest services and banquet management. Upon successful completion of the Hospitality Academy, students will be eligible to take the nationally recognized Certified Rooms Division Specialist Certification examination and may also receive articulated college credit from a growing list of local and national colleges and universities. (Hotel and Restaurant Management Academy)

457M♥

Networking Essentials - Honors

Grade 12

3 credits

Prerequisite: PC Software and Hardware

The Networking Essentials curriculum 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. Additionally, students are prepared for further study in other specialized security fields. Students who complete the course will have working knowledge of globally recognized CISCO CCENT 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. (Cybersecurity Networking Academy)

456I

PC Software and Hardware

Grades 11, 12

2 credits

Prerequisite: Algebra I

The PC Software and Hardware 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 (Cybersecurity Networking Academy)

864M♥

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 (possible industry certification) including energy conservation, green technology (LEED certification), and solutions for the future. Students have the option to participate in an internship related to their career interests. Students are required to complete at least 6-8 hours per week at the mentor site, attend weekly senior seminars, choose "real world" problems to research and submit research abstracts, and write reflection papers based on their project work. Students provide their own transportation to the mentor site or an on-campus placement at the ARL is available. (Systems and Project Engineering Academy)

860M♥

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. (Systems and Project Engineering Academy)

Junior Reserve Officers Training Corp

The Junior Reserve Officers Training Corps (JROTC) is a cooperative effort between the school system, the U.S. Army (at Atholton and Howard High Schools), and the U.S. Air Force (at Oakland Mills High School) to produce successful leaders, citizens and students. The JROTC Program emphasizes character education, student achievement, wellness, leadership, and diversity, as well as provides a career pathway for students interested in careers in the military. The program can be taken for four years of high school. Cadets are involved in community service and outside leadership programs. Many cadets also participate in related extracurricular activities such as drill team, color guard, or other team competitions. The program includes citizenship, leadership, communication skills, historical perspectives, and other topics to help cadets in high school and after graduation. The program is designed so that learning progresses as cadets develop at each grade level. See additional information regarding registration on page 14.

7501 JROTC Army I - Grades 9, 10, 11, 12

7502 JROTC Army II - Grades 10, 11, 12
(Must have successfully completed JROTC Army I)

7503 JROTC Army III - Grades 11, 12 (Must have successfully completed JROTC Army I and II)

7504 JROTC Army IV - Grade 12 (Must have successfully completed JROTC Army I, II, and III)

7505 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 as a service learning project is required.**

7506 JROTC Air Force I - Grades 9, 10, 11, 12

7507 JROTC Air Force II - Grades 10, 11, 12 (Must have successfully completed JROTC Air Force I)

7508 JROTC Air Force III - Grades 11, 12 (Must have successfully completed JROTC Air Force I and II)

7509 JROTC Air Force IV - Grade 12 (Must have successfully completed JROTC Air Force I, II, and III)

7510 JROTC Air Force Advanced - Grade 12

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.

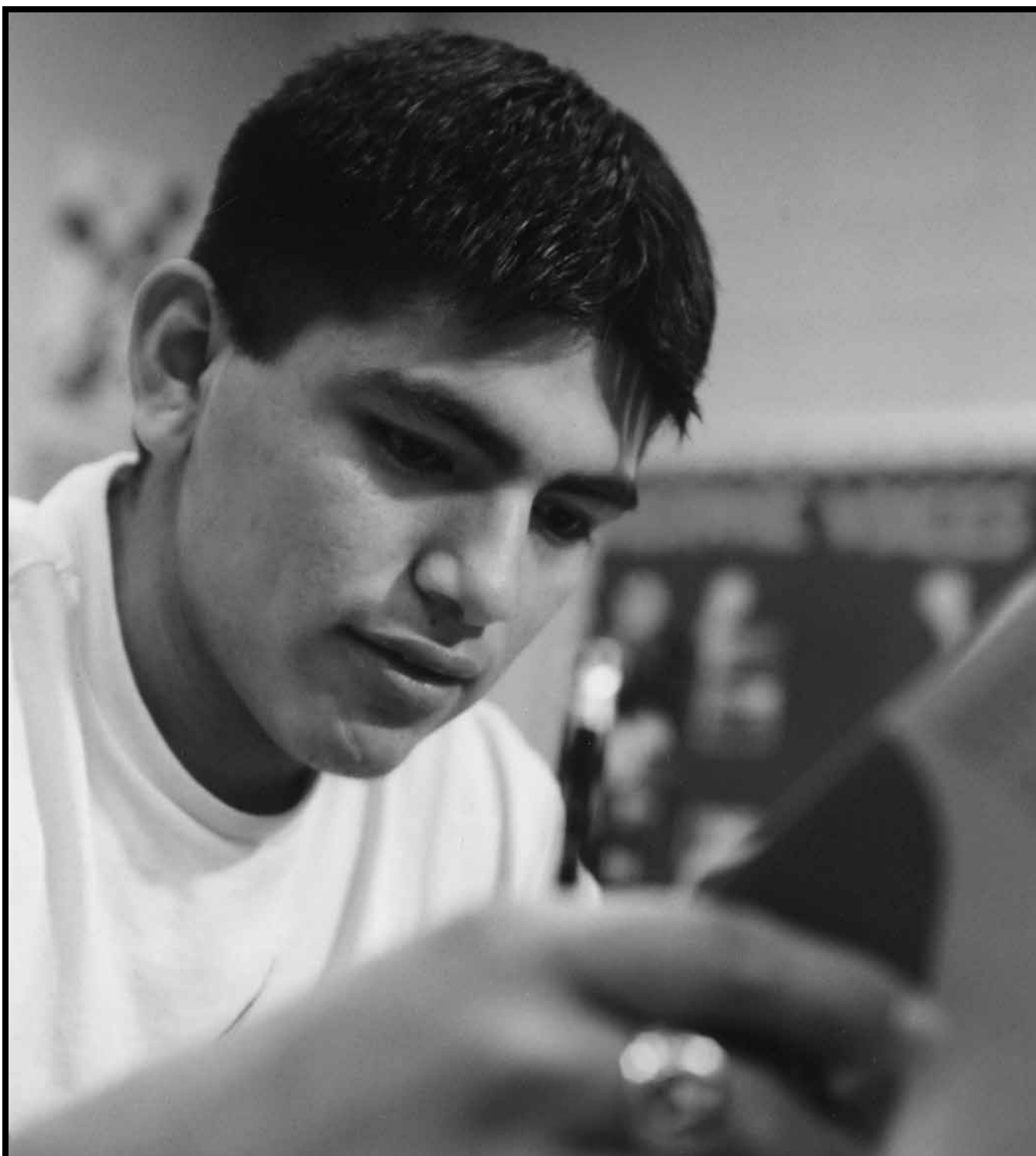
Air Force JROTC is a 3- or 4-year program offered to high school students in grades 9-12. The curriculum includes the following:

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, followership, 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. As students progress through the Air Force JROTC program they gain more specific knowledge in the area of intermediate and applied leadership development. No military obligation is incurred. **Each JROTC course fulfills the service learning requirement as a service learning project is required.**



English

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.

1010★

English 9 – Review Level

1 credit

Students receive comprehensive and explicit language, writing, and reading skill instruction. The class's structure allows for one-on-one instructional opportunities. Students explore the same units and materials as students enrolled in English 9. Students read, synthesize, analyze and respond in written and spoken modes to thematically connected complex literary and informational texts representative of diverse media and formats such as poems, short stories, historical documents, novels, speeches, and essays. *Students must meet the Senior Writing Project requirement, a task that they begin as freshmen.* English 9 Review may not be scheduled in all high schools.

1015★■

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. *Students must meet the Senior Writing Project requirement, a task that they begin as freshmen.*

1011

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.

101M♥★

English 9 – Honors

1 credit

Although somewhat less rigorous than 9 G/T, 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. 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. *Students must meet the Senior Writing Project requirement, a task that they begin as freshmen.* This is a Certificate of Merit course.

102M♥★

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. *Students must meet the Senior Writing Project requirement, a task that they begin as freshmen.* This is a Certificate of Merit course.

1110●★

English 10 – Review Level

1 credit

Students receive comprehensive and explicit language, writing, and reading skill instruction. The small class size allows for one-on-one instructional opportunities. Students explore the same units and materials as students enrolled in English 10. *Students must meet the Senior Writing Project requirement.* English 10 Review may not be scheduled in all high schools.

English

1115★●■

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 skills. *Students must meet the Senior Writing Project requirement.* Students enrolled in this course must take and pass the English 10 High School Assessment in order to graduate.

111M♥★●

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. *Students must meet the Senior Writing Project requirement.* This is a Certificate of Merit course.

112M♥★●

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. *Students must meet the Senior Writing Project requirement.* This is a Certificate of Merit course.

1118

High School English Seminar

Grades 10, 11

1 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.

1116 – Semester I

1117 – Semester II

English High School Assessment (PARCC) 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 PARCC assessment. 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

1215★■

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. *Students must meet the Senior Writing Project requirement.*

121M♥★

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. *Students must meet the Senior Writing Project requirement.*

122M♥★■

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. *Students must meet the Senior Writing Project requirement.*

1315★■

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. Units of study for the course include the following: European Origins: Tensions Between Humans and the Divine; Renaissance and Beyond: Hubris, Emotions, and Reasoning; Clash of Ideologies; and Modern Voices: Self-Actualization. *Students complete the Senior Writing Project, a personal reflection of growth as writers from Grades 6–12.*

131M♥★

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. Units of study for the course include the following: European Origins: Tensions Between Humans and the Divine; Renaissance and Beyond: Hubris, Emotions, and Reasoning; Clash of Ideologies; and Modern Voices: Self-Actualization. *Students complete the Senior Writing Project, a personal reflection of growth as writers from Grades 6–12. This is a Certificate of Merit course.*

132M♥★■

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. *Students complete the Senior Writing Project, a personal reflection of growth as writers from Grades 6–12. This is a Certificate of Merit course.*

English

141M★ - Semester I

142M★ - Semester II

Year – 140M★

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.

1800★ - Semester I

1801★ - Semester II

1802★ - Year

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.

1311 - Semester I

1312 - Semester II

College Readiness

Grade 12

1/2 credit

Prerequisites: English 9, 10, 11

This course is designed especially for students whose placement scores on the College Board Accuplacer Examination indicate the need for additional skill development to ensure success in college courses. This course is tailored to the individual student's needs and focuses on improving both reading comprehension and writing skills. In addition, study and test-taking strategies, time management, and student awareness of his or her specific learning styles are also addressed in this course. Upon completing the course, students will re-take the Accuplacer Examination, on which their actual college placement will be based if entering Howard Community College or other participating institutions.

181M♥★

Humanities I - G/T (English)

Grade 9

1 credit

Prerequisite: Teacher recommendation

Corequisite: Concurrent enrollment in 281M 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 281M, they receive two credits, one for English and one for Social Studies, (United States History or Modern World History). *Students must meet the Senior Writing Project requirement.*

182M♥●★

Humanities II - G/T (English)

Grade 10

1 credit

Prerequisite: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in 282M 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 282M, they receive two credits, one for English and one for Social Studies (American Government). At the end of the course, students must take the High School Assessment for English 10. *Students must meet the Senior Writing Project requirement.*

183M♥★

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

Grade 11

1 credit

Prerequisite: Recommendation from G/T English and Social Studies

Corequisite: Concurrent enrollment in 283M 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 283M, they receive two credits, one for English and one for Social Studies, (United States History or World History). *Students must meet the Senior Writing Project requirement.*

English

184M♥★

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 284M 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 284M, they receive two credits, one for English and one elective credit for social studies. *Students complete the Senior Writing Project, a personal reflection of growth as writers from Grades 6-12.*

1500

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, copyediting, 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.

150M

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.

151M

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.

152M

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.

1955 - Semester I

1956 - Semester II

Year – 1957

SAT Preparation Course

Grades 10, 11, 12

1/2-1 elective credit

Prerequisite: It is recommended that students have completed Common Core Algebra II and Common Core Geometry prior to taking this course.

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.

1601★ - Semester I

1605★ - Semester II

1603★ - Year

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

1606★ - Semester I

1602★ - Semester II

1604★ - Year

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.

1530

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.

1531

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.

153M

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.

154M

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.

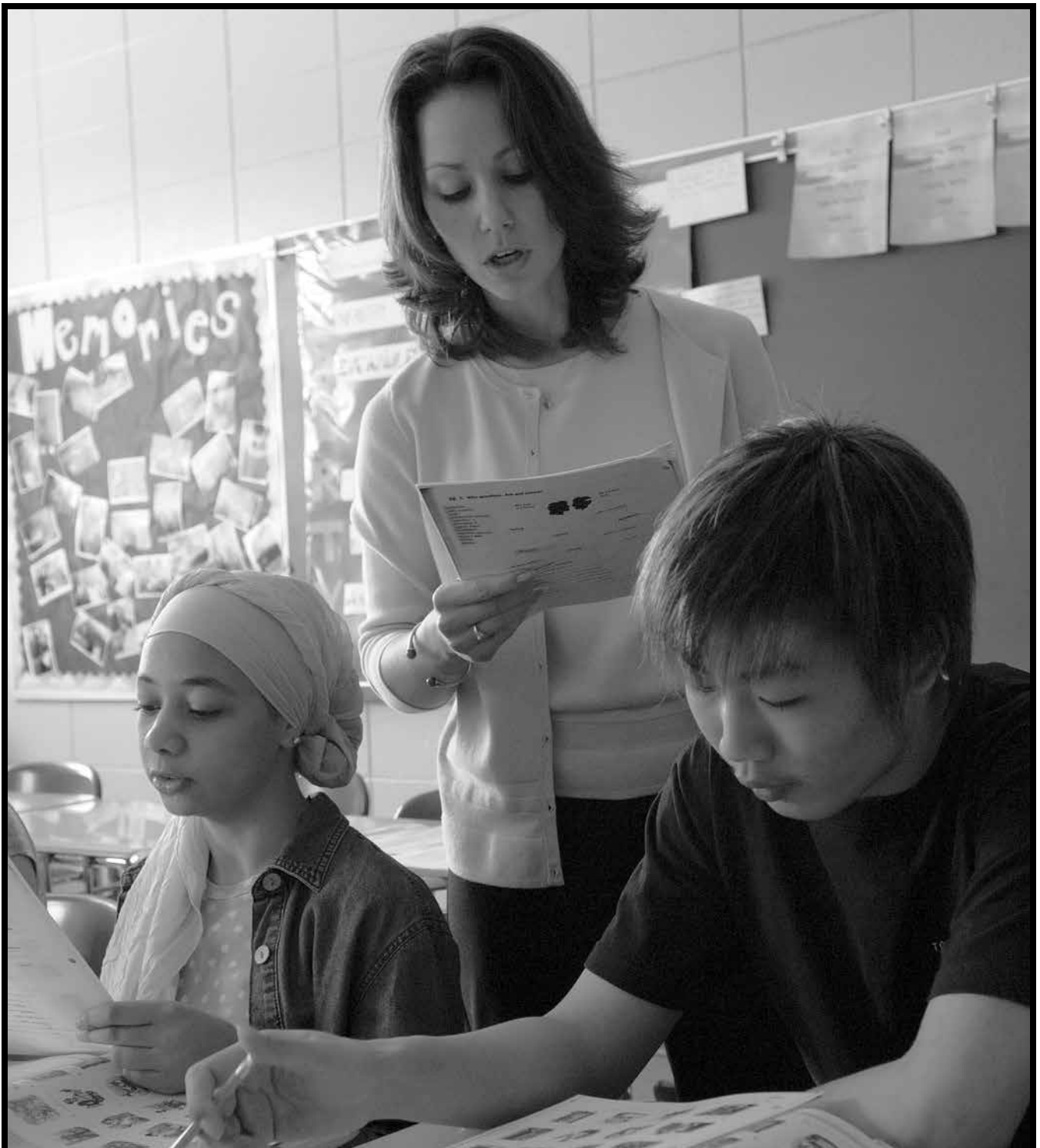
1799

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

ESOL

The English for Speakers of Other Languages Program (ESOL) is an appropriate assistance program for English language learners who need direct and intense study in English in order to participate successfully in content area classes. Instruction is provided at selected high schools by ESOL teachers and instructional assistants. Course selection is based on staff recommendation, achievement in previous ESOL or English language development courses, and scores on English language proficiency assessments.

Entering Level ESOL Courses:

These course offerings are designed for English language learners who have limited proficiency in the English language as well as limited literacy skills in their native language. They provide an intense level of English language instruction in order to accelerate readiness for ESOL English I and related courses. 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.

95161

ESOL Entering English Language Development
1 World Language credit

95171

ESOL Entering English Language Development A
1/2 World Language credit

95181

ESOL Entering English Language Development B
1/2 World Language credit

Grade 9

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

95191

ESOL Entering Literacy Development
1 elective credit

95201

ESOL Entering Literacy Development A
1/2 elective credit

95211

ESOL Entering Literacy Development B
1/2 elective credit

Grade 9

This course focuses on reading goals designed for older readers who are learning English as a second language. It includes instruction in the English sound system, decoding, vocabulary development, fluency, and comprehension strategies. Specific objectives are differentiated for the needs of individual students and the cohort of learners. The course is open to students who are identified as English Learners.

ESOL Level I Program

These course offerings are designed for English language learners with high beginning or low intermediate level proficiency in the English language. They provide a level of language instruction that builds on beginning English language development. Some of the courses are provided as full or half credit options to accommodate students who enroll in the HCPSS first or second semesters.

9501

ESOL English Literature & Composition I
1 English credit

Corequisite: Enrollment in English Language Development I-9508

9525

ESOL English Literature & Composition IA
1/2 English credit

Corequisite: Enrollment in ESOL English Language Development IA-9527

9526

ESOL English Literature & Composition IB
Grade 9 1/2 English credit

Corequisite: Enrollment in ESOL English Language Development IB-9528

This course is appropriate for students with high beginning or low intermediate level proficiency in English. Listening, speaking, reading, and writing skills are emphasized through the analysis and interpretation of literary genres. Students earn English credit.

ESOL

9508

ESOL English Language Development I

1 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition I-9501

9527

ESOL English Language Development IA

1/2 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition IA-9525

9528

ESOL English Language Development IB

Grade 9

1/2 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition IB-9526

This course for ESOL I students provides additional instruction in listening, speaking, reading, and writing English. The course is a skills-based class using mostly informational text to develop reading and writing strategies. Vocabulary development, language structures, academic language, and oral language development are stressed. Students earn World Language credit. *Note: Course may not meet all colleges' entrance requirements.*

9505

ESOL Introduction to US History

Grades 9, 10, 11, 12

1 elective credit

This course introduces beginning English language learners to US History. The course emphasizes significant events in US History, basic geography skills, and academic skills related to social studies. The course also includes information on significant holidays and celebrations and cultural norms as related to American historical events.

9506

ESOL Tutorial I

1 Elective credit

9509

ESOL Tutorial IA

1/2 Elective credit

9513

ESOL Tutorial IB

1/2 Elective credit

Grades 9, 10, 11, 12

This course offers beginning English language learners additional practice in all four skill areas of language learning. Brief oral presentations and practical problem solving situations allow students to improve their communicative competence and build their speaking confidence. A variety of topics and instructional methods prepare students to successfully participate in general education classes.

ESOL Level II Program

These course offerings are designed for English language learners with intermediate level proficiency in the English language. They provide a level of language instruction that continues English language development gained through prior English language instruction.

9502

ESOL English Literature & Composition II

Grades 9, 10

1 English credit

Corequisite: Enrollment in English Language Development II-9511

9535

ESOL English Literature & Composition IIA

1/2 English credit

Corequisite: Enrollment in ESOL English Language Development IIA-9537

9536

ESOL English Literature & Composition IIB

1/2 English credit

Corequisite: Enrollment in ESOL English Language Development IIB-9538

This course is appropriate for students with intermediate level proficiency in English. Listening, speaking, reading, and writing skills are emphasized through the analysis and interpretation of literary genres. Students earn English credit.

9511

ESOL English Language Development II

Grades 9, 10

1 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition II-9502

9537

ESOL English Language Dev II A

1/2 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition II A-9535

9538

ESOL English Language Dev II B

1/2 World Language credit

Corequisite: Enrollment in ESOL English Literature and Composition II B-9536

This course for ESOL II students provides additional instruction in listening, speaking, reading, and writing English. The course is a skills-based class using mostly informational text to develop reading and writing strategies. Vocabulary development, language structures, academic language, and oral language development are stressed. Students earn World Language credit. *Note: Course may not meet all colleges' entrance requirements.*

ESOL

9515★

ESOL United States History

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

This course presents a comprehensive study of United States history from 1877 to the present. Emphasis is placed on study habits, reading for comprehension and interpretation, written and oral expression, as well as social studies skills.

Note: This course fulfills the United States History graduation requirements.

9507

ESOL Tutorial II

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

This course provides English language learners additional language practice. Conversational activities and group projects help students develop greater confidence in listening and speaking. A variety of topics and instructional methods prepare students to successfully participate in general education classes once they leave the ESOL program. Preparation for the English High School Assessment is offered for any student who has not yet met the test requirements.

ESOL Advanced Level Program

These course offerings are designed for English language learners with advanced proficiency in the English language. They provide a level of language instruction that supports participation in general education classes.

9504●★

ESOL American Government

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

This course presents a comprehensive study of national, state, and local government. Additional topics of study include current issues, law, and economics. Students practice library research skills by completing a research paper. *Note: This course fulfills the American Government graduation requirement.*

9512

ESOL English Language Development III

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

Corequisite: Enrollment in English 9 or English 10

9539

ESOL English Language Development III A

1/2 World Language credit

Corequisite: Enrollment in English 9 or English 10

9540

ESOL English Language Development III B

1/2 World Language credit

Corequisite: Enrollment in English 9 or English 10

This course provides additional instruction in listening, speaking, reading, and writing for English language learners. The course is a skills-based class using mostly informational text to develop strategic reading, technical, and creative writing skills. Vocabulary development, language structures, academic language, and oral language development are stressed. Students earn World Language credit. *Note: Course may not meet all colleges' entrance requirements.*

9510

ESOL Health

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

Focusing on the goals of Maryland's health education curriculum, this course's instruction provides support for students with limited English language skills. Topics include alcohol, tobacco, and other drugs; nutrition and fitness; mental health; disease prevention; safety, first aid, and injury prevention; and family life and human sexuality. In accordance with Maryland's education bylaws, parents have the option of excusing students from discussion of human sexuality and AIDS prevention, and optional health education curriculum is available.

9503★

ESOL Modern World History

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

This course is designed to survey the history of the human experience from the late middle ages to the present. Significant events, concepts, and understandings from both the Western and non-Western world traditions are explored. Emphasis is placed upon study habits, reading for comprehension and interpretation, and written and oral expression. *Note: This course fulfills the World History graduation requirement.*



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.

Art 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	Art History AP/GT
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

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.

6000

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.

6001

Art II: Developing Ideas in Media

Grades 10, 11, 12

1 credit

Prerequisite: Art I

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.

608M♥

Art II: Developing Ideas in Media - G/T

Grades 10, 11, 12

1 credit

Prerequisites: Art I

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.

602M♥ - (1 credit)

603M♥ - (2 credits)

Art III: Portfolio Development – Honors

Grades 11, 12

1-2 credits

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.

Art

604M♥ - (1 credit)

605M♥ - (2 credits)

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

Grades 11, 12

1-2 credits

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.

600M♥ - (1 credit)

601M♥ - (2 credits)

Art IV: Personal Directions in Art Studio - Honors

Grade 12

1-2 credits

Prerequisites: 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.

606M♥ - (1 credit)

607M♥ - (2 credits)

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

Grade 12

1-2 credits

Prerequisites: 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.

690M♥■

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.

6005

New Forms in Art

Grades 11, 12

1 credit

Prerequisite: Art I

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. The search for personal meaning and student artists' intentions provides a thematic center for making works of art based upon the themes of celebration and community, both local and global.

6006

Photography I: Developing Ideas in Photography

Grades 10, 11, 12

1 credit

Prerequisite: Art I

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.

Art

609M

Photography I: Developing Ideas in Photography- G/T

Grades 10, 11, 12

1 credit

Prerequisite: Art I

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.

691M♥ - (1 credit)

698M♥ - (2 credits)

Photography II: Portfolio Development - Honors

Grades 11, 12

1-2 credits

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.

696M♥ - (1 credit)

697M♥ - (2 credits)

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

Grades 11, 12

1-2 credits

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.

694M♥ - (1 credit)

695M♥ - (2 credits)

Photography III: Personal Directions in Photography - Honors

Grade 12

1-2 credits

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.

692M♥ - (1 credit)

693M♥ - (2 credits)

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

Grade 12

1-2 credits

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.

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 as well as 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*	G/T Mentor Program - Dance Teaching Assistant

* 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 of two 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. A student that participates in the Dance Company GT receives Merit Credit.

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

7120

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 practices, events and performances during a school year may not exceed 15.

7121

Dance II

Grades 9, 10, 11, 12

1 credit

Prerequisites: 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 practices, events and performances during a school year may not exceed 15.

Dance

7123

Dance III

Grades 9, 10, 11, 12

1 credit

Prerequisites: 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 practices, events and performances during a school year may not exceed 15.

714M

Dance IV

Grades 9, 10, 11, 12

1 credit

Prerequisites: 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 practices, events and performances during a school year may not exceed 20.

715M♥

Dance IV - G/T

Grades 10, 11, 12

1 credit

Prerequisites: Dance III

In this Fine Arts course, students are challenged in sessions of dance technique or production that enhance their maximum movement range. Emphasis is placed on original creation, portfolio development, independent research, task commitment and special topics. Various styles of dancing are explored and individuality of artistic expression is required. 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. The number of required non-school practices, events and performances during a school year may not exceed 20.

716M♥

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 opportunities to master set and student choreography. Production and performance are the major components and foci of this elite performance ensemble. Additionally, students will refine a performance 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 practices, events and performances during a school year may not exceed 30.

713M♥

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. Various styles of dancing will be reviewed and performed. The majority of the class time will be dedicated to the learning of set choreography to enhance performance qualities through production. Additionally, students will develop and refine a performance portfolio that demonstrates originality, quality, shows breadth of formal, technical, and expressive experiences. Performance components beyond the regular school day are required. The number of required non-school practices, events and performances during a school year may not exceed 30.

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.

62801

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.

62011

Band - Symphonic/Marching

Grades 9, 10, 11, 12

1 credit

Prerequisite: 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.

Music

64801

Band - Symphonic Winds/Marching

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

Prerequisite: 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.

64001

Band - Wind Ensemble/Marching

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

Prerequisite: Audition and director approval

Students perform band literature from a variety of styles and historical periods and from the highest level of difficulty in concerts, performance assessments, athletic events, and community programs. Emphasis is on increased 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.

63801

Band - Wind Ensemble/Marching - G/T

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

Prerequisite: Application and audition

Students perform with and meet the curricular requirements of the WE/Marching. In addition, students will prepare an e-portfolio consisting of individual performances of solo literature from difficulty levels V-VI (on a scale of VI) and written assignments including research, analysis, and reflection of performances. The number of required non-school hour performances and practices during a school year may not exceed 40.

64601

Percussion Ensemble

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

Prerequisite: 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.

62841

Jazz Ensemble

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

Prerequisite: 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.

62201

Instrumental Ensemble

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

Prerequisite: 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.

Music

63901

Vocal Ensemble

Grades 9, 10, 11, 12

1/2-1 credit

Prerequisite: 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.

63511

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.

63011

Concert Choir

Grades 9, 10, 11, 12

1 credit

Prerequisite: 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.

63201

Concert Choir - GT

Grades 9, 10, 11, 12

1 credit

Prerequisite: Application and audition

Students perform with and meet the curriculum requirements of the Concert Choir. In addition, students will prepare a digital portfolio consisting of individual performances of solo literature from difficulty levels V-VI (on a scale of VI) and written assignments including research, analysis, and reflection of performances. The number of required non-school hour performances and practices during a school year may not exceed 40.

63981

Vocal Ensemble - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Application and audition

Students perform with and meet the curriculum requirements of the Vocal Ensemble. In addition, students will prepare a digital portfolio consisting of individual performances of solo literature from difficulty levels V-VI (on a scale of VI) and written assignments including research, analysis, and reflection of performances. The number of required non-school hour performances and practices during a school year may not exceed 40.

63611

Chamber Choir

Grades 9, 10, 11, 12

1 credit

Prerequisite: Audition and director approval

Co-requisite: The school may require concurrent enrollment/ participation in Concert Choir.

Students perform a variety of choral literature emphasizing singing in four or more parts as well as solo singing. 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 40.

62301

Chamber Choir - G/T

Grades 10, 11, 12

1 credit

Prerequisite: Application and audition

Students perform with and meet the curricular requirements of the Chamber Choir. In addition, students will prepare an e-portfolio consisting of individual performances of solo literature from difficulty levels V-VI (on a scale of VI) and written assignments including research, analysis, and reflection of performances. The number of required non-school hour performances and practices during a school year may not exceed 40.

6198 - Semester I

6199 - Semester II

6200 - Year

Music Technology I

Grades 9, 10, 11, 12

1/2-1 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.

Music

6203

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, as well as advanced study and usage of notational typesetting techniques.

64621

String Ensemble

Grades 9, 10, 11, 12

1/2-1 credit

Prerequisite: 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.

64101

String Orchestra

Grades 9, 10, 11, 12

1 credit

Prerequisite: 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.

62601

String Orchestra - G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Application and audition are required.

Students perform with and meet the curricular requirements of the String Orchestra. In addition, students will prepare an e-portfolio consisting of individual performances of solo literature from difficulty levels V-VI (on a scale of VI) and written assignments including research, analysis, and reflection of performances. The number of required non-school hour performances and practices during a school year may not exceed 40.

6491 - Semester I

6492 - Semester II

6490 - Year

Guitar I

Grades 9, 10, 11, 12

1/2-1 credit

Students develop basic guitar techniques through performing solo and ensemble guitar literature from difficulty levels I and II (on a scale of VI). Skills emphasized include (1) tuning and proper tone production, (2) note reading using traditional notation and guitar tablature, and (3) utilizing current technology to assist in developing basic improvisational and compositional techniques. All students interested in learning guitar may participate.

6405

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 (on a scale of VI). Skills emphasized include (1) identifying and analyzing musical elements and structural characteristics of various styles and genres and (2) 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.

6409♥

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 (on a scale of VI). Skills emphasized include (1) performing with alternate tunings and more sophisticated chord progressions and (2) 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.

Music

6496 - Semester I
6497 - Semester II
6495 - Year
Piano I

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

Students develop basic piano techniques through performing a variety of piano literature representing various styles and genres from difficulty levels I and II (on a scale of VI). Skills emphasized include (1) performing with independent parts for right and left hands, (2) note reading using traditional notation, and (3) utilizing current technology to assist in developing basic improvisational and compositional techniques. All students interested in learning piano may participate.

6407

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 (on a scale of VI). Skills emphasized include (1) identifying and analyzing musical elements and structural characteristics of various styles and genres and (2) 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.

6408♥

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 (on a scale of VI). Skills emphasized include (1) performing scales and arpeggios in all keys and (2) 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.

6110

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.

612M♥

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.

6101 - Semester I

6102 - Semester II

6100 - Year

Music and Society

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

Students learn about music and its relationship to society through investigation of music from a variety of styles, genres, and historical periods. This study enables students to make connections with art, dance, and drama, as well as with other content areas. This is a non-performance music course and is open to all interested students.

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 Arts II, Musical Theatre I or Technical Theatre I	Theatre Arts III, Theatre Arts III - GT, Musical Theatre II, Musical Theatre II - G/T or Technical Theatre II - G/T	Theatre Arts IV, Theatre Arts IV - GT, Musical Theatre III, Musical Theatre III - G/T or Technical Theatre III - 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, 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.

1690

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 events during a school year may not exceed 6.

1691

Theatre Arts II

Grades 10, 11, 12

1 credit

Prerequisite: Theatre Arts I

In Theatre Arts II, students continue to enrich and expand their knowledge of theatre. This course provides a more in depth experience with acting, production elements, American theatre forms, and the connections among artistic disciplines. Students in all advanced levels of Theatre Arts are expected to participate in the performances offered by the Theatre Arts department. Completion of Theatre Arts I or equivalent experience is required. The number of required non-school practices, events, and performances during a school year may not exceed 25.

169M

Theatre Arts III

Grades 11, 12

1 credit

Prerequisite: Theatre Arts II

In Theatre Arts III, students continue to enrich and expand their knowledge of world theatre history, classical and contemporary acting techniques, and textual and performance analysis. Students will identify and utilize conventions of different theatrical periods and styles. Students in all advanced levels of Theatre Arts are expected to participate in the performances offered by the Theatre Arts department. The number of required non-school practices, events, and performances during a school year may not exceed 25.

Theatre Arts

171M♥

Theatre Arts III - GT

Grades 11, 12

1 credit

Prerequisite: Theatre Arts II or Stagecraft I

In Theatre Arts III GT, students continue to enrich and synthesize their knowledge of world theatre history, classical and contemporary acting techniques, and textual and performance analysis. For the purpose of college and career readiness, students begin to develop a body of work with emphasis placed on creative problem solving, independent research and learning, task commitment and special topics. Students in all advanced levels of Theatre Arts are expected to participate in the performances offered by the Theatre Arts department. The number of required non-school practices, events, and performances during a school year may not exceed 25.

170M

Theatre Arts IV

Grade 12

1 credit

Prerequisite: Theatre Arts III or Theatre Arts III - G/T

In Theatre Arts IV students integrate art forms, acquired performance and production techniques, and knowledge of theatre in social, cultural, and historical context to create original devised works. Students will compare the works of a variety of theatre artists including artists traditionally underrepresented. Students in all advanced levels of Theatre Arts are expected to participate in the performances offered by the Theatre Arts department. The number of required non-school practices, events, and performances during a school year may not exceed 25.

172M♥

Theatre Arts IV - GT

Grade 12

1 credit

Prerequisite: Theatre Arts III or III - GT

In Theatre Arts IV GT, students continue to develop a body of work informed by research of contemporary and master theatre practitioners, cultural exemplars and peer leadership. The portfolio reflects a breadth of performance experiences, concentration on various theatrical conventions, critical analysis of dramatic texts and performances, and quality execution of scripted and original devised works. Each theatre student will reflect on the portfolio in a cumulative artistic statement. Students in all advanced levels of Theatre Arts are expected to participate in the performances offered by the Theatre Arts department. The number of required non-school practices, events, and performances during a school year may not exceed 25.

1721

Musical Theatre I

Grades 10, 11, 12

1 credit

Prerequisite: Theatre Arts I

In this performance-based course, the student receives training in the specialized skills of performing and producing Musical Theatre. Students in all advanced levels of Theatre Arts are expected to participate in some way in the performances offered by the Theatre Arts department. Completion of Theatre Arts I or equivalent experience is required. The number of required non-school practices, events and performances during a school year may not exceed 25.

1722

Musical Theatre II

Grades 11, 12

1 credit

Prerequisite: Musical Theatre I

With primary emphasis on performance, students continue to enrich and expand their knowledge of the areas emphasized in Musical Theatre I. Students in all advanced levels of Theatre Arts are expected to participate in some way in the performances offered by the Theatre Arts department. The number of required non-school practices, events and performances during a school year may not exceed 25.

173M

Musical Theatre II - GT

Grades 11, 12

1 credit

Prerequisite: Musical Theatre I or Audition

In this performance-based course, the student receives training in the specialized skills of researching, performing and producing musical theatre. Students continue to develop and synthesize their skills in voice, dance and acting while deepening their knowledge of musical theatre history and styles. For the purpose of college and career readiness, students begin to develop a body of work with emphasis placed on creative problem solving, independent research and learning, task commitment and special topics. Students' experience and exploration in this course will culminate in an original performance.

Theatre Arts

1723

Musical Theatre III

Grade 12

1 credit

Prerequisite: Musical Theatre II

With primary emphasis on performance, students continue to enrich and expand their knowledge of the areas emphasized in Musical Theatre II. Students in all advanced levels of Theatre Arts are expected to participate in some way in the performances offered by the Theatre Arts department. The number of required non-school practices, events and performances during a school year may not exceed 25.

174M

Musical Theatre III - GT

Grade 12

1 credit

Prerequisite: Musical Theatre II or audition

In this performance-based course, students continue to deepen their knowledge of musical theatre informed by extensive research of musical theatre creators. Students hone their skill set through performances in a wide variety of musical theatre styles and peer leadership. For the purpose of college and career readiness, students complete their portfolio by focusing their body of work on an individual artistic vision and quality execution of original capstone work.

1711

Technical Theatre I

Grades 10, 11, 12

1 credit

Prerequisite: Theatre Arts I

This course provides students with theory and practice in various technical and management aspects of theatre production. Completion of Theatre Arts I or equivalent experience is required. The number of required non-school practices, events and performances during a school year may not exceed 25.

175M

Technical Theatre II - GT

Grades 11, 12

1 credit

Prerequisite: Technical Theatre I

In this course, students continue to deepen their knowledge and skills learned in Technical Theatre I. Students will apply their learning through the realization of a design concept, utilizing practical experiences during the mainstage productions and other auditorium events. For the purpose of college and career readiness, students document their work in a portfolio that will meet the standards for college entrance review. The number of required non-school practices, events and performances during a school year may not exceed 25.

176M

Technical Theatre III – G/T

Grade 12

1 credit

Prerequisite: Technical Theatre II – G/T

In this course, students continue to build and develop their professional portfolio. While working on the school's mainstage shows and other auditorium events, students will serve in key roles in developing the concepts and designs. As part of this course, each student will develop an original creative piece in consultation with the teacher. For the purpose of college and career readiness, students complete their portfolio by focusing their body of work on an individual artistic vision and quality execution of original capstone work. The number of required non-school practices, events and performances during a school year may not exceed 25.



Health Education/ Student Services

Health Education/Student Services

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 must earn one half credit in Health Education.

7001■—Semester I

7003■—Semester II

Health

Grade 9 (required for graduation) 1/2 credit

This course will focus on the health standards of the Maryland state curriculum which include: alcohol, tobacco and other drugs; nutrition and fitness; social and emotional health; disease prevention and control; safety, first aid, and injury prevention; family life and human sexuality; and personal and consumer health. In accordance with Maryland's education regulations, parents have the option of having their children excused from instruction in human sexuality and HIV/AIDS prevention education.

Note: This course should be taken sequentially with lifetime fitness in Grade 9.

7251 – Semester I

7252 – Semester II

7253 – Year

Current Health Issues

Grades 10, 11, 12 1/2–1 credit

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. In accordance with Maryland's education regulations, parents have the option of having their children excused from instruction in human sexuality and HIV/AIDS prevention education.

STUDENT SERVICES

1900

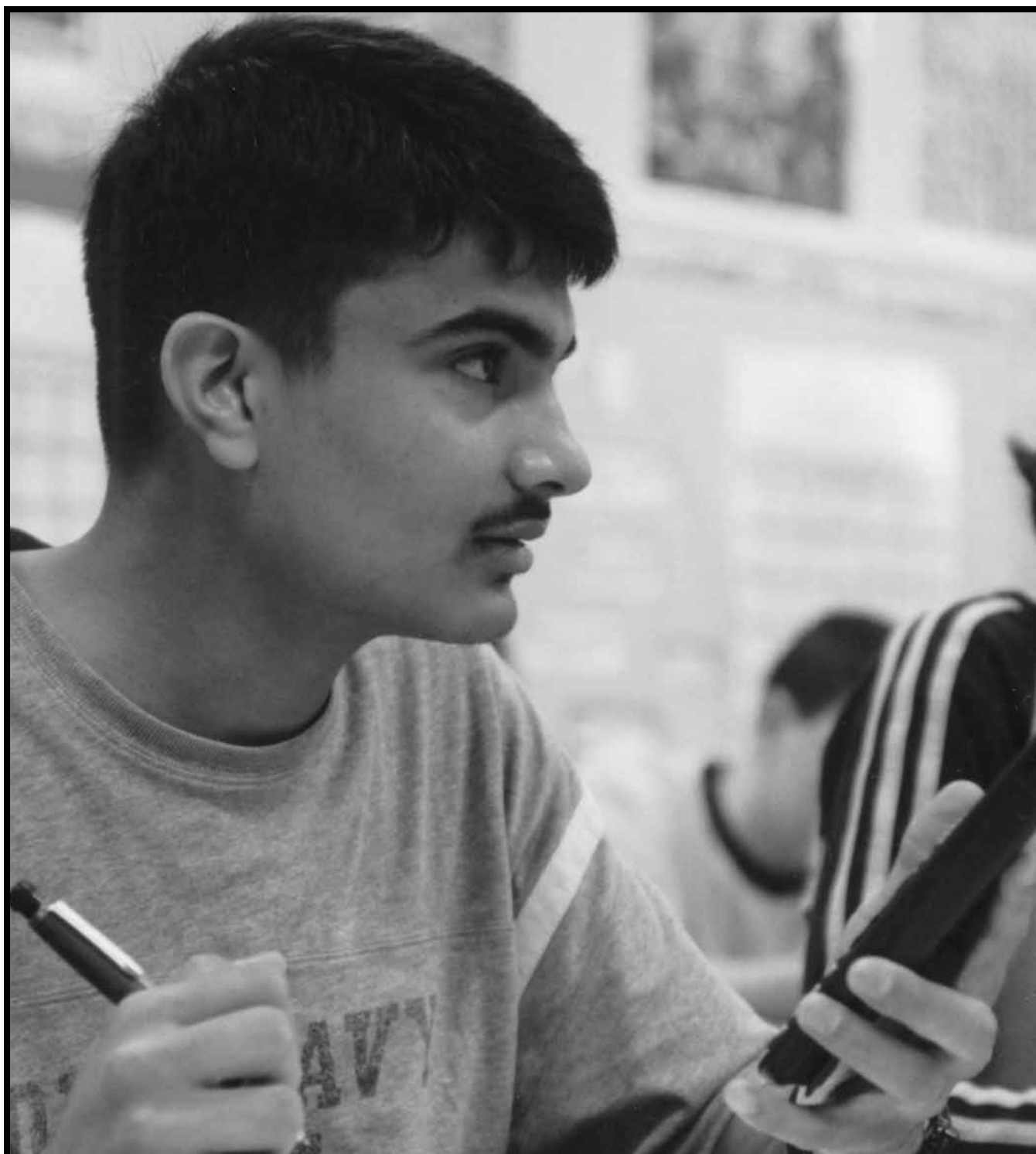
Student Services Office Assistant/Tutor

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.

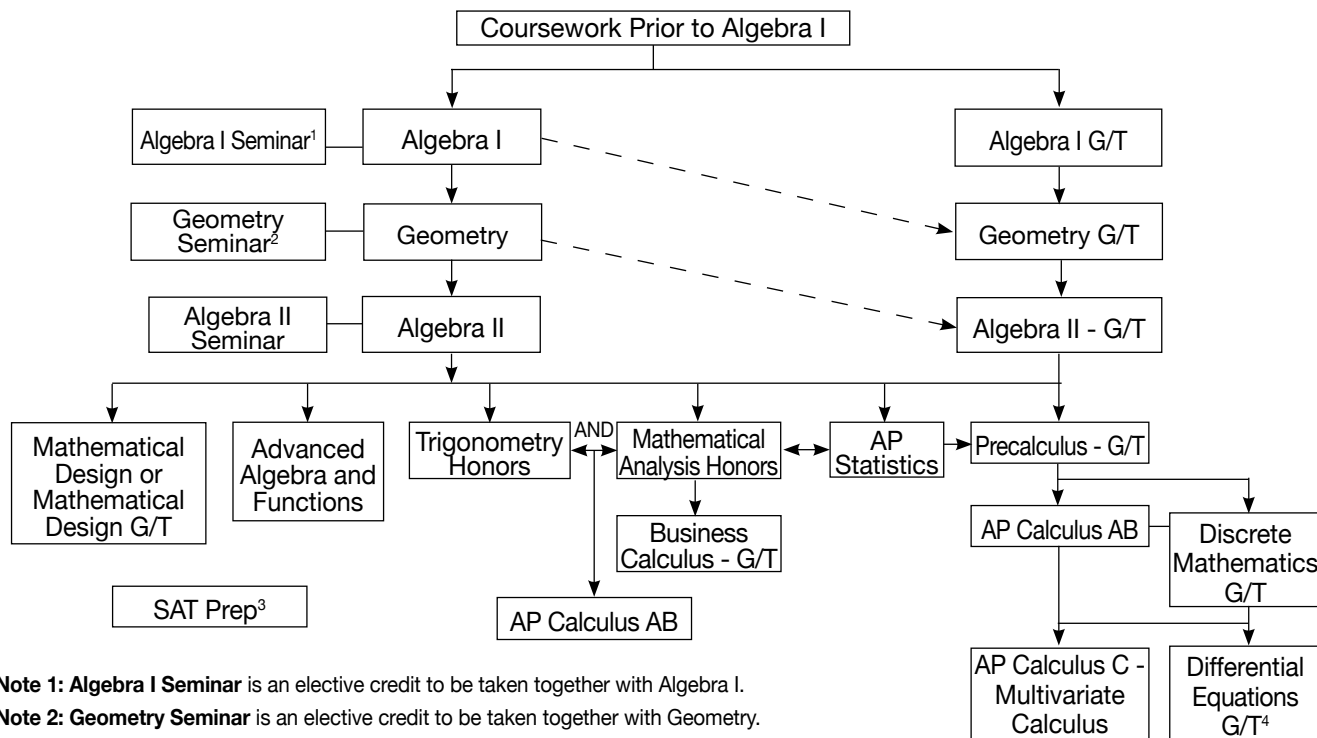
Students have the option of earning a credit only or earning a credit AND up to 75 student service learning hours. If a student wishes to earn service learning hours using this option, pages 1 and 2 of an Individual Service Learning Project Proposal should be completed and submitted to the School Counseling 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

Mathematics

The need for all students to study mathematics is becoming more evident as society becomes increasingly technology dependent. In all mathematics courses communication, connections, reasoning, problem solving, and technology are major strands. Courses in mathematics are worthwhile not only for students who plan to continue their education in college, but also for those students who plan to enter the work force immediately upon completion of high school.



Note 1: **Algebra I Seminar** is an elective credit to be taken together with Algebra I.

Note 2: **Geometry Seminar** is an elective credit to be taken together with Geometry.

Note 3: A student may enroll in the one-semester, **SAT Prep** in any sequence after completion of Geometry.

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

3041★●■

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) investigating trends and modeling with descriptive statistics; (4) performing arithmetic operations on polynomial expressions, solving equations, inequalities, and systems of equations; and (5) using properties of rational and irrational numbers to develop an understanding of quadratic functions.

3047 - Semester I

3048 - Semester II

3043 - Year

Algebra I Seminar

Co-requisite: Concurrent enrollment in Common Core Algebra I 3041

Grades 9, 10, 11

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.

3202★■

Geometry

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra I

This course focused on the development of transformational, Euclidean, and coordinate geometry with extensive real-world application. Students will study logic, inductive and deductive reasoning, geometric definitions, postulates, and the proofs of theorems. Course requirements are rigorous with an emphasis on mathematical reasoning and communication.

Mathematics

3203 - Semester I 3204 - Semester II 3200 - Year Geometry Seminar

Grades 10, 11 **1 elective credit**

Co-requisite: Concurrent enrollment in Geometry 3202

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.

322M♥★

Geometry - G/T

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

Prerequisite: Algebra I 3041

In this gifted-and-talented course, students will develop an understanding of transformational, Euclidean, and coordinate geometry with extensive real-world application. Students will study logic, inductive and deductive reasoning, geometric definitions, postulates, and the proofs of theorems. Other topics include an introduction to trigonometry and vectors. Course requirements are rigorous with an emphasis on mathematical reasoning and communication.

1955 - Semester I

1956 - Semester II

1957 - Year

SAT Preparation Course

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

Prerequisite: Algebra I and Geometry

Co-requisite: Algebra II

This course provides strategy-based instruction designed to improve students' test-taking skills and to 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 for and take the SAT upon completing the course.

330M★■

Algebra II

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

Prerequisite: 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. *Note: Credit by exam is available for this course. Contact the school's counselor for details.*

3302 - Semester I 3303 - Semester II 3301 - Year Algebra II Seminar

Grades 10-12 **1 elective credit**

Prerequisite: Algebra I, Algebra I Seminar, Geometry, Geometry with Seminar.

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, 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.

331M♥★

Algebra II - G/T

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

Prerequisite: Geometry - G/T

This course is for students capable of and interested in progressing through the concepts of Algebra II - GT, 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 calculators are an integral part of this course.

3055★

Advanced Algebra and Functions

Grade 12 **1 credit**

Prerequisite: Algebra II - GT, Algebra II

This course is designed to further student understanding of the content initially presented in Algebra II - GT, 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 learning strategies, topics include linear, quadratic, radical, rational, exponential, and logarithmic functions, as well as applications of algebraic functions. Graphing calculators are an integral part of this course.

3035

Financial Literacy

Grades 11, 12 **1 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, budgeting, investments, and retirement.

Mathematics

3050★

Mathematical Design

Grades 9, 10, 11, 12

1 credit

Co-requisite: Concurrent enrollment or successful completion of Algebra II or Algebra II G/T

This innovative, problem-based Statistics course engages students in design thinking, research, and collaborative problem solving as tools to investigate mathematical problems in their world. Students will learn how to use the engineering design process and engage with the Mathematical Practices, Next-Generation Science Standards of Practices, and STEM Standards of Practice. Student teams will leverage technology to build networks of industry experts, community leaders, the mathematics community, and their peers.

306M★

Mathematical Design – G/T

Grades 9, 10, 11, 12

1 credit

Prerequisite: Algebra II or Algebra II G/T

This innovative, problem-based Statistics course engages students in design thinking, research, and collaborative problem solving as tools to investigate mathematical problems in their world. Students will learn how to use the engineering design process and engage with the Mathematical Practices, Next-Generation Science Standards of Practices, and STEM Standards of Practice. Student teams will leverage technology to build networks of industry experts, community leaders, the mathematics community, and their peers. Student teams are expected to publish results, participate in local and state STEM fairs, and seek opportunities to present results to community forums.

The students in this course earn GT designation through the level of complexity in their work. The expectation is that students seeking GT credit will seek publication of their findings, present their findings to community groups, and/or submit their work to local, state, or national competitions and fairs.

348M♥★

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 calculator.

345M♥★

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.

343M♥★■

Precalculus - G/T

Grades 9, 10, 11

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 calculators are an integral part of this course.

363M♥★■

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.

341M♥★

Discrete Mathematics G/T

Grade 11, 12

1 credit

Co-requisite: 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 calculators are an integral part of this course.

Mathematics

369M♥★■

Business Calculus - G/T

Grade 11, 12

1 credit

Prerequisite: Mathematical Analysis - 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 calculators are an integral part of this course.

365M♥★■

Calculus AB – AP

Grades 10, 11, 12

1 credit

Prerequisite: 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.

370M♥★■

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.

380M♥★■

Differential Equations - G/T

Grades 11, 12

1 credit

Co-requisite: 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.

3999

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.

465M♥★■

Computer Science A - AP [AP Computer Science]

Grades 10, 11, 12

1 credit

Prerequisite: Principles of Computer Science G/T

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 also be used as a math credit to fulfill graduation requirements.



Media

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.

1860

Television

Grades 11, 12

1 credit

In this course, students receive instruction and experience in various technical and artistic aspects of television production. Topics covered include principles of communications, 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.

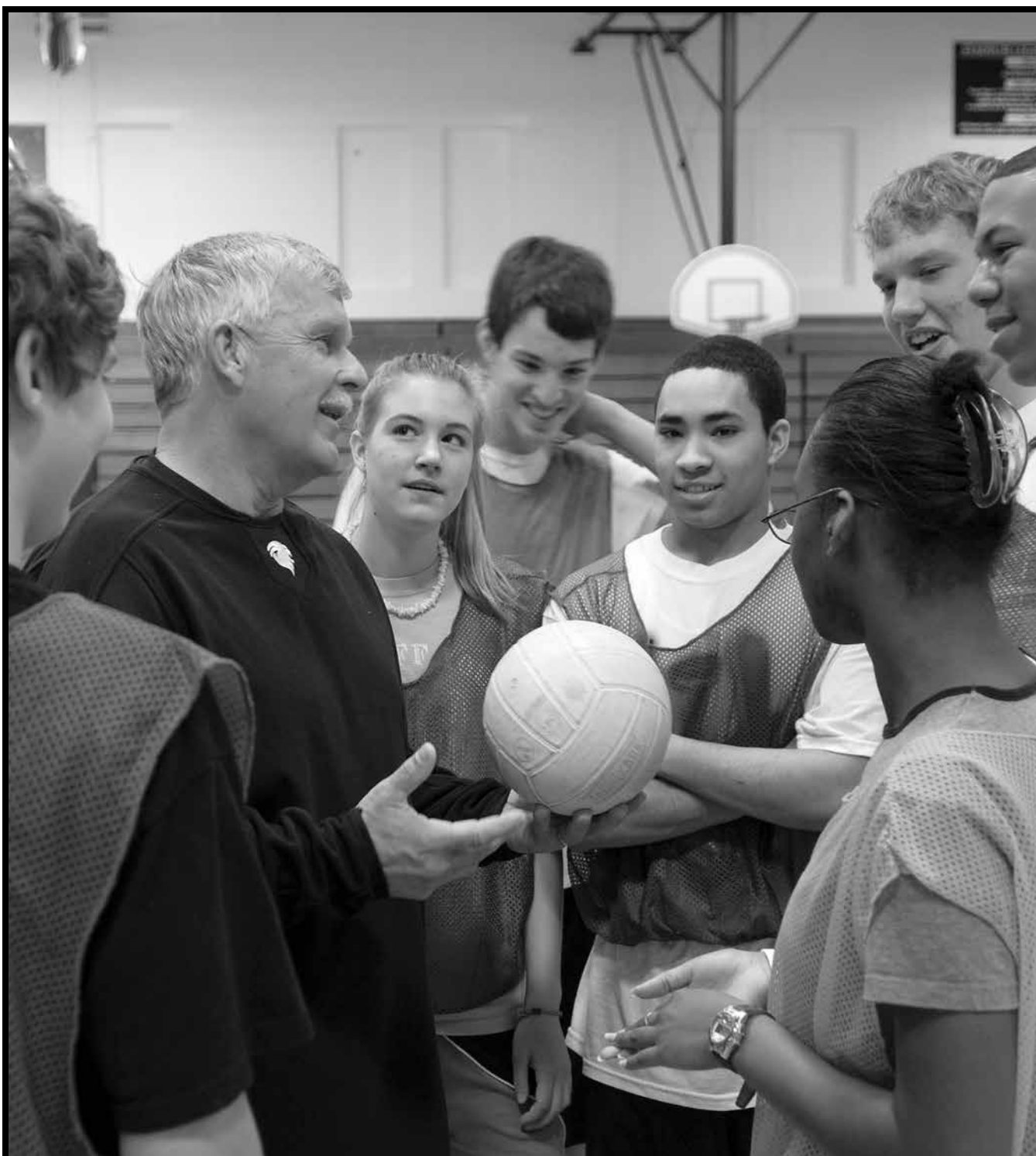
1899

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

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.

7000 ■ - Semester I

7002 ■ - Semester II

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.

7018

Aerobic Conditioning and Weight Training I

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

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 roping 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.

7019

Aerobic Conditioning and Weight Training II

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

Prerequisite: Aerobic Conditioning and Weight Training 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. By the conclusion of the course, students will be able to model proper lifting and spotting techniques for all exercises and lifts that were presented.

7021 - Semester I

7022 - Semester II

7020 - Year

Specialty Sports

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

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.

7031 - Semester I

7032 - Semester II

7030 - Year

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

7016

Strength and Conditioning I

Grades 10, 11, 12

1 credit

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, including 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.

7017

Strength and Conditioning II

Grades 10, 11, 12

1 credit

Prerequisite: Strength and Conditioning 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.

7014

Strength and Conditioning III

Grades 11, 12

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 cognitive 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.



Reading

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.

7306, 7330, 7331, 7332

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.

10051 - Strategic Reading I

10061 - 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

Science

The high school science program is designed to integrate the practices of science and engineering with core ideas from the major disciplines of science. The crosscutting concepts, or big ideas, of science are also emphasized so that students have the opportunity to construct deep understandings of science. The primary goal within the science program is science literacy for all students. However, numerous and varied opportunities are available to students who wish to study science at deeper levels. The learning environment within science promotes logical thinking, honesty, and curiosity. Disciplinary literacy is emphasized throughout the program. Environmental literacy is integrated within both the Biology and Earth/Space Science curricula.

At the high school level, each student must earn a minimum of three science credits. One credit must be in Biology, the state-assessed course. Two additional credits may be earned through a combination of courses in the earth, life, physical, or environmental sciences. It is strongly recommended that students pursue a course of study that provides a broad array of experiences in at least three different science disciplines. Please note that a variety of course levels, including Advanced Placement, are offered within each science discipline. Therefore, students and their families are encouraged to review the course descriptions carefully when selecting courses. Students are encouraged to follow a rigorous course of study in science throughout all four years of high school. Laboratory experiences are integral within every science class. Students must pass the High School Assessment in Biology for graduation.

4000★

Earth and Space Science – Review Level

Grades 9, 10

1 credit

This course builds on the foundations of science established in middle school and includes the study of oceanography, geology, astronomy, meteorology, and geography. Students will engage in the practices of science and engineering to construct their understanding of the natural environment, the processes that bring about change, and the impact of earth and space science on society. The course emphasizes the mastery of basic skills, study habits, reading and vocabulary building, and writing. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science.

4001★■

Earth and Space Science

Grades 9, 10

1 credit

This course builds on the foundations of science established in middle school and includes the study of oceanography, geology, astronomy, meteorology, and geography. Students will engage in the practices of science and engineering to construct their understanding of the natural environment, the processes that bring about change, and the impact of earth and space science on society. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science and to apply their knowledge of relevant principles to everyday life.

400M♥★

Earth and Space Science – G/T

Grades 9, 10

1 credit

This course builds on the foundations of science established in middle school and includes the study of oceanography, geology, astronomy, meteorology, and geography. Students will engage in the practices of science and engineering to construct their understanding of the natural environment, the processes that bring about change, and the impact of earth and space science on society. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science and to apply their knowledge of relevant principles to

everyday life. Students will be expected to conduct research related to earth and space science and to share their findings with peers or members of the scientific community.

4100●★

Biology – Review Level

Grades 10, 11

1 credit

This course includes the study of cellular structure, function, and energy transfer; genetics; evolution, diversity and classification; and ecology. Students engage in the practices of science and engineering to construct their understanding of life processes, to explain how organisms adapt to meet the challenges of living in their environment, and to demonstrate the relationships between structure and function and change over time. The course emphasizes the mastery of basic skills, study habits, reading and vocabulary building, and writing. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

4101●★■

Biology

Grades 10, 11

1 credit

This course includes the study of cellular structure, function, and energy transfer; genetics; evolution, diversity and classification; and ecology. Students will engage in the practices of science and engineering to construct their understanding of life processes, to explain how organisms adapt to meet the challenges of living in their environment, and to demonstrate the relationships between structure and function and change over time. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

Science

4102 - Semester I

4103 - Semester II

Biology High School Assessment (HSA) Mastery

Grades 10, 11, 12 1/2 elective credit

Prerequisite: Biology

Biology HSA Mastery is an elective course for students who have not passed the Biology High School Assessment. The course fulfills the requirement for appropriate assistance before a student can re-take the Biology HSA. Instruction is offered in small group settings with a high degree of one-on-one interaction with the teacher. Students take the Biology HSA during the administration that is closest to the end of the course.

410M♥●★

Biology – Honors

Grade 10 1 credit

This course includes the study of cellular structure, function, and energy transfer; genetics; evolution, diversity and classification; and ecology. Students engage in the practices of science and engineering to construct their understanding of life processes, to explain how organisms adapt to meet the challenges of living in their environment, and to demonstrate the relationships between structure and function and change over time. Students will be expected to demonstrate the ways of thinking and acting that are inherent in the practice of science. Students will be expected to research and report on biology-related issues that affect society. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

411M♥●★

Biology – G/T

Grades 9, 10 1 credit

This course includes the study of cellular structure, function, and energy transfer; genetics; evolution, diversity and classification; and ecology. Students engage in the practices of science and engineering to construct their understanding of life processes, to explain how organisms adapt to meet the challenges of living in their environment, and to demonstrate the relationships between structure and function and change over time. Students will be expected to design and conduct research related to the biological science and to share their findings with peers or members of the scientific community. This is a quantitatively rigorous course, and students will be expected to apply concepts of Algebra. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

413M♥★■

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 and Chemistry and concurrent enrollment in or completion of Physics are recommended. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

420M★

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.

421M♥★

Chemistry - G/T

Grades 10, 11 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. This is a quantitatively rigorous course and advanced algebra and other mathematics principles will be applied in solving problems. Students will examine principles of chemistry as they relate to our everyday lives. Students will be expected to conduct research related to chemistry and to share their findings with peers or members of the scientific community.

Science

423M♥★■

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 Chemistry or G/T Chemistry 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. Concurrent enrollment in or completion of Physics is also recommended.

412M★

Anatomy and Physiology

Grades 11, 12

1 credit

This elective course builds on the foundations of Biology 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 engage in the practices of science and engineering to construct their 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 science. Completion of Biology and completion of or concurrent enrollment in Chemistry are recommended. *Note: Animals may be dissected in the course. Alternatives to dissection are available.*

440M★

Astronomy

Grades 11, 12

1 credit

This elective course builds on the foundations of Earth and Space Science. Students will engage in the practices of science and engineering to construct an 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 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, data interpretation including statistical analysis will be emphasized. Completion of Earth and Space Science is recommended.

4400★

Environmental Science

Grades 11, 12

1 credit

This elective course builds on the foundations of Biology and Earth and Space Science. It is designed for students to experience the interdisciplinary nature of environmental science. Students will engage in the practices of science and engineering to construct their understanding of the interdependence of organisms, populations, and natural resources; renewable and nonrenewable energy resources; and man's impact on the environment. Students will participate in frequent descriptive and field investigations, service projects, and research related to environmental law. They will also have the opportunity to explore environmental careers. Completion of Biology and Earth Science are recommended.

446M♥★■

Environmental Science - AP

Grades 11, 12

1 credit

This course builds on the foundations of Biology and Earth and Space Science and is designed to be the equivalent of a college-level introductory environmental science course. Students will engage in the practices of science and engineering to construct an 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. Completion of Earth Science, Biology, and Chemistry are recommended. Concurrent enrollment in or completion of Physics is also recommended. It is recommended that students in this course take the AP Exam when it is offered in May. *Animals may be dissected in this course. Alternatives to dissection are available.*

425M★

Forensic Science

Grades 11,12

1 credit

This elective course builds on the foundations of Biology and Chemistry and is designed to help students understand the principles of Forensic Science. Students will engage in the practices of science and engineering to construct an 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. Completion of Introduction to Chemistry and Physics or completion of or concurrent enrollment in Chemistry are recommended. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

Science

4200★

Introduction to Chemistry and Physics

Grades 11, 12

1 credit

This elective course is designed to help students understand the fundamental concepts of the physical sciences. The course includes a semester of chemistry concepts: atomic structure, the periodic table, bonding, chemical reactions, and acids and bases. The course also includes one semester of physics topics: mechanics, electricity, and magnetism. Students will engage in the practices of science and engineering to construct their understanding and to solve authentic problems related to these topics. Students will be expected to apply concepts from Algebra and Geometry throughout the course.

415M★

Marine Science

Grades 11, 12

1 credit

This elective course builds on the foundations of Biology and Earth and Space Science 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 engage in the practices of science and engineering to construct their understanding of the adaptations in marine life organisms, the characteristics of the oceans, and the interactions and relationships within marine ecosystems. Completion of Earth Science and Biology and concurrent enrollment in or completion of Chemistry are recommended. *Note: Animals may be dissected in this course. Alternatives to dissection are available.*

430M★■

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 and engineering of science 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.

435M♥★

Physics 1 - AP

Grades 11, 12

1 credit

This course develops in-depth student understanding of forces, motion, and gravity; energy and momentum; electrostatics and electrical circuits; and waves and sound. It is designed to be the equivalent of an introductory 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. This course replaces the former Physics-G/T course. 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.

436M♥★

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 GT, or Physics is recommended. This is a quantitatively rigorous course. Thus, completion of Algebra II is recommended.

Science

432M♥★

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.

434M♥★

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.

4499

Laboratory Assistant - Science

Grades 11, 12

1 elective credit

Prerequisites: Biology; Chemistry; teacher recommendation

This elective 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 may 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

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, Advanced Placement World History 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. Students entering Grade 9 in the School Year 2013-14 must pass the High School Assessment in American Government, achieve a combined score of 1602, or successfully complete a Bridge Project in order to graduate.

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 (AP)	Social Studies Elective(s)

2208★

United States History – Review Level

Grades 9, 10, 11, 12

1 credit

Prerequisite: Staff recommendation

This course presents a comprehensive study of United States history from 1877 to the present. Although the content and themes of the course is consistent with the United States History course described below, emphasis is placed on the mastery of skills. These skills include 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 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 fulfills the United States history graduation requirement. United States History Review may not be scheduled in all high schools.

2209★■

United States History

Grades 9, 10, 11, 12

1 credit

This course presents a comprehensive study 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.

219M♥★

United States History – Honors

Grades 9, 10, 11, 12

1 credit

This course presents a comprehensive study 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 independency. 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

220M♥★

United States History – G/T

Grade 9

1 credit

This course presents a comprehensive study 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 at least two historical research investigations or participation in National History Day®. This course requires students to have a commitment to academic pursuits, while demonstrating self-motivation and independency. 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.

213M♥★■

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.

2110●★

American Government – Review Level

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. Although the content and themes of the course is consistent with the American Government course described below, emphasis is placed on the mastery of skills. These skills include 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 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. American Government Review may not be scheduled in all high schools.

2111★●

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, as well as 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.

211M♥★●

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 independency. 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 prepares students for the High School Assessment in American Government and fulfills the government graduation requirement.

2112 - Semester I

2113 - Semester II

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.

Social Studies

223M♥★●■

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 and other nations, as well as general concepts used to interpret American and international politics and analysis of specific case studies. It requires familiarity with the various institutions, beliefs, and ideas that define American and international politics. This course meets the American Government graduation requirement or the elective requirement and prepares students for the High School Assessment in American Government. Students 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.

2013★■

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.

203M♥★

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 independency. 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.

205M♥★

World History – AP

Grades 11, 12

1 credit

The purpose of this course is to develop greater understandings about the evolution of global processes and contacts in interaction with different types of human societies over time. Students learn key concepts in world history through a thematic approach. Content is drawn from various time periods across five geographic regions: Africa, the Americas, Asia, Europe, and Oceania. This course may be taken as an elective or to meet the World History graduation requirement. Students electing this course may be given summer or pre-course readings. It is recommended that students in this course take the AP Exam when it is offered in May.

256M★ - Semester I

257M★ - Semester II

255M★ - Year

African-American Studies

Grades 10, 11, 12

1/2-1 credit

This course is a comprehensive study of the history of the African-American experience. Topics include the origin of civilizations in Africa, the evolution of the slave system in the United States, the issues facing African Americans in the post-Civil War Era, and the progress of and problems faced by African Americans in the 20th and 21st Centuries.

291M★ - Semester I

292M★ - Semester II

290M★ - Year

Ancient and Medieval History

Grades 10, 11, 12

1/2-1 credit

This course presents a survey of the human experience from 5000 BC/BCE to 1300 AD/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 History as an Academic Discipline, the Ancient World, the Inheritors of the Roman World, and the World Beyond Europe. This course will NOT fulfill the World History graduation requirement.

242M★ - Semester I

243M★ - Semester II

241M★ - Year

Anthropology

Grades 11, 12

1/2-1 credit

This course provides an opportunity for studying human culture. It is divided into two broad areas, physical anthropology and cultural anthropology. Physical anthropology is concerned with the evolution of human beings, where students explore archaeology, skull structure, and evolution. Cultural anthropology examines mankind's interaction with the environment and covers ancient culture, problems of cultural change, art, mythology, and language.

Social Studies

224M♥★

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.

230M♥★

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.

293M★

Far Eastern Studies Grades 11, 12 1 credit

This interdisciplinary course focuses on the history, literature, philosophy, art, and religions of China, Korea, Japan, Cambodia, and Vietnam. In addition to the historical perspective, the course emphasizes the current role of this part of the world. This requires that students have a strong understanding of twentieth century events or express a willingness to do outside reading to become familiar with these events. Students will read novels and works of literature to support classroom activities.

206M♥★

Human Geography – AP Grades 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.

281M♥★

Humanities I - G/T (Social Studies) Grade 9 1 credit

Prerequisite: Teacher recommendation

Co-requisite: Concurrent enrollment in 181M Humanities I G/T (English)

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 181M, they receive 2 credits, one for English and one for Social Studies (United States History or Modern World History).

282M♥●★

Humanities II/Government and Politics - AP (Social Studies) [AP Government and Politics] Grade 10 1 credit

Prerequisite: Recommendation from G/T English and Social Studies

Co-requisite: Concurrent enrollment in 182M 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 182M, 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.

283M♥★

Humanities III/World History - AP or United States History - AP (Social Studies) [AP World History or AP United States History] Grade 11 1 credit

Prerequisite: Recommendation from G/T English and Social Studies

Co-requisite: Concurrent enrollment in 183M 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 183M, they receive 2 credits, one for English and one for Social Studies, (United States History or World History).

Social Studies

284M♥★

Humanities IV - G/T (Social Studies)

Grade 12 1 credit

Prerequisite: Recommendation from G/T English and Social Studies

Co-requisite: Concurrent enrollment in 184M 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 184M, they receive 2 credits, one for English and one elective credit for Social Studies.

295M★ - Semester I

296M★ - Semester II

297M★ - Year

Latin American Studies

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

This Latin American Studies course focuses on the historic influences that have led to the evolution of modern Latin America. This course 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.

286M★ - Semester I

287M★ - Semester II

285M★ - Year

Law and the Citizen

Grades 10, 11, 12 1/2-1 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.

270M - Semester I

272M - Semester II

Leadership I

Grades 10, 11, 12 1/2 credit

This semester course emphasizes the acquisition of skills needed to become an effective leader. Topics include intrapersonal and interpersonal skills, an examination of organizational structure and operations, and judgmental skills. This course is recommended for students who wish to explore and develop leadership potential.

273M - Semester I

271M - Semester II

Leadership II/Community Service

Grades 10, 11, 12 1/2 credit

(Fulfills Student Service Learning Requirement)

Prerequisite: Completion of Leadership I or similar experience

This semester course is designed to give students practical opportunities to demonstrate leadership skills in various settings. Topics for study include organizational structure and operational techniques, application of interpersonal skills, and appropriate problem-solving and decision-making skills. Participation in a service learning project is required of all students.

268M - Semester I

269M - Semester II

294M - Year

Leadership I/II

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

This course combines many of the activities and course outcomes from the Leadership I and Leadership II courses (see descriptions), but is designed to accommodate students who need either a year or a semester option. This course will fulfill the Service Learning requirement as a service learning project is required.

280M♥★■

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.

288M★■

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.

Social Studies

289M★■

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.

261M★ - Semester I

262M★ - Semester II

260M★ - Year

Native American Cultures

Grades 10, 11, 12

1/2-1 credit

This course examines cultural traits and societal forms of specific North American indigenous peoples prior to the settlement of Europeans. Students explore the changes in the lifestyles of indigenous peoples as a result of the historical clash of cultures from the 15th century to the present.

240M★

Political Science

Grades 10, 11, 12

1 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.

246M★ - Semester I

247M★ - Semester II

245M★ - Year

Psychology

Grades 11, 12

1/2-1 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.

248M♥★■

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.

251M★ - Semester I

252M★ - Semester II

250M★ - Year

Sociology

Grades 11, 12

1/2-1 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.

265M★ - Semester I

266M★ - Semester II

267M★ - Year

World Religions

Grades 11, 12

1/2-1 credit

This course investigates the various forms and values of several ancient and contemporary religious groups. Students are asked to compare major and minor religious movements including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam.

2299

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 Academy 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 GT 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 (or above)	Mathematics
Science Requirement	Biology*	Science Requirement	Elective
U.S. History	American Government or AP Government and Politics	Modern World History or AP World History	Speech (recommended)
Lifetime Fitness/Health	Law and the Citizen	Leadership	AP Economics or Political Science
Elective	Fine Arts Requirement	AP Comparative Governments	AP Human Geography or elective
Elective	Technology Ed Credit	Elective	GT Intern/Mentor (for students doing internships)

* Some students may take Biology G/T in 9th grade.

Shaded areas designate academy coursework.



Special Education

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 Section A of this catalog in order to earn a Maryland high school diploma.

Academic/Life Skills

7320 Academic Life Skills English	1 credit
7321 Academic Life Skills Social Studies	1 credit
7322 Academic Life Skills Math	1 credit
7323 Academic Life Skills Science	1 credit
7324 Academic Life Skills Tutorial	1 credit
7325 Academic Life Skills Enclave 1.0	1 credit
7352 Academic Life Skills Enclave 2.0	2 credits
7353 Academic Life Skills Enclave 3.0	3 credits
7354 Academic Life Skills Enclave 4.0	4 credits
7355 Academic Life Skills Work Experience	1 credit

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.

7305	1 credit
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Braille

This tutorial aligns with the IEP of a student who is blind or visually impaired. Instruction is provided in the reading and writing of the literary Braille code and the Nemeth code for math and science. 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.

Resource Classes

Students who are eligible may receive instructional services in the general education classroom or a resource classroom according to the student's Individualized Education Program (IEP) and least restrictive environment determinations. Instruction provided in a resource class follows the Essential Curriculum that is offered in a general education classroom setting.

Students with IEPs in regional programs may receive their course credit in a resource class. All other students with IEPs will receive elective credit for resource classes. For example, a student will enroll in the English 9 course in the general education setting for an English credit. In addition, the student may also sign up for a Resource English class for additional support and would receive an elective credit.

Resource English

7300★ Resource English 9	1 credit
7310★ Resource English 10	1 credit
7326★ Resource English 11	1 credit
7327★ Resource English 12	1 credit

Resource Math

7312 Resource Math	1 elective credit
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Resource Science

7343★ Resource Earth and Space Science	1 credit
7344★ Resource Biology	1 credit
7345★ Resource Environmental Science	1 credit
7346★ Resource Intro. to Chemistry & Physics	1 credit

Resource Social Studies

7340★ Resource World History	1 credit
7341★ Resource American Government	1 credit
7342★ Resource U.S. History	1 credit

Special Education

7335

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.

Tutorial

7328 - Semester I 1/2 credit

7329 - Semester II 1/2 credit

7314 - Year 1 credit

Prerequisite: Students must have an IEP or a 504 plan.

This course is designed to help students improve their organizational, test-taking and self-advocacy skills. Students who receive special education services will have the opportunity to work on mastering their IEP goals and objectives. Instruction is offered in small group settings with a high degree of interaction by the instructor.

Work Study

7313 - Semester I 1/2 credit

7319 - Semester II 1/2 credit

7315 1 credit

7316 2 credits

7317 3 credits

7318 4 credits

Grades 11, 12 1/2-4 credits

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.



World Languages

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

Program	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
7th Grade	Level I-A	Level I-B	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

Alternative preparation and experiences in the languages may substitute for grade level designations and prerequisite courses.

American Sign Language

5350★

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.*

5360★

American Sign Language II

Grades 10, 11, 12

1 credit

Prerequisite: American Sign Language I

Students will continue to build skills learned in 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.*

5370★

American Sign Language III

Grades 11, 12

1 credit

Prerequisite: 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

5560★■

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.

5561★♥

Chinese I – Honors

Grades 9, 10, 11, 12

1 credit

Though the content is the same as Chinese I, 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.

World Languages

5602★■

Chinese II

Grades 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.

5603♥★

Chinese II – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Chinese I / Chinese I - Honors

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.

555M★■

Chinese III

Grades 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.

554M♥★

Chinese III – Honors

Grades 11, 12

1 credit

Prerequisite: Chinese II / Chinese II - Honors

Though 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.

55701M♥★

Chinese IV - Honors

Grades 12

1 credit

Prerequisite: Chinese III

Chinese IV 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.

559M♥★

Chinese IV - AP Chinese Language and Culture

Grades 12

1 credit

Prerequisite: Chinese III / Chinese III - Honors

The Chinese IV 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 Exam when it is offered in May.

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.

5000★■

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.

World Languages

5005♥★

French I – Honors

Grades 9, 10, 11, 12

1 credit

Though the content is the same as French I, 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.

5010★■

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.

5020♥★

French II – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: French I / French I - Honors

Though 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.

503M★

French III

Grades 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.

504M♥★

French III – Honors

Grades 10, 11, 12

1 credit

Prerequisite: French II / French II - Honors

Though 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.

506M♥★

French IV – Honors

Grades 11, 12

1 credit

Prerequisite: French III / 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.

507M♥★■

French V – AP French Language and Culture

Grade 12

1 credit

Prerequisite: French IV / 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.

World Languages

509M♥★

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.

510M♥★

Advanced Special Topics in French – Honors

Grades 11, 12

1 credit

Prerequisite: French IV, 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.

5100★■

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.

5101♥★

German I – Honors

Grades 9, 10, 11, 12

1 credit

Though the content is the same as German I, 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.

5110★■

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.

World Languages

5111♥★

German II – Honors

Grades 10, 11, 12

1 credit

Prerequisite: German I / German I - Honors

Though 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.

512M★

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.

515M♥★

German III – Honors

Grades 11, 12

1 credit

Prerequisite: German II / German II - Honors

Though 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.

51301M♥★

German IV - Honors

Grade 12

1 credit

Prerequisite: German III

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.

514M♥★

Advanced Special Topics in German – Honors

Grade 12

1 credit

Prerequisite: German IV

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.

517M♥★

German IV – AP German Language and Culture

Grade 12

1 credit

Prerequisite: German III / 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.

5200★

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.

World Languages

5201♥★

Italian I – Honors

Grades 9, 10, 11, 12

1 credit

Though the content is the same as Italian I, 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.

5210★

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.

5211♥★

Italian II – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Italian I / Italian I – Honors

Though 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.

522M★

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.

524M♥★

Italian III – Honors

Grades 11, 12

1 credit

Prerequisite: Italian II / Italian II – Honors

Though 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.

52151M♥★

Italian IV – Honors

Grade 12

1 credit

Prerequisite: Italian III

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.

525M♥★

Italian IV – AP Italian Language and Culture

Grade 12

1 credit

Prerequisite: Italian III / 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.

World Languages

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.

5250★■

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.

5251♥★

Latin I – Honors

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

Though the content is the same as Latin I, 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.

5260★■

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.

5261♥★

Latin II – Honors

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

Prerequisite: Latin I / 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.

527M★■

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.

526M♥★

Latin III – Honors

Grades 11, 12 **1 credit**

Prerequisite: Latin II / Latin II - Honors

Though 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.

52651♥★

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.

530M♥★

Latin IV – AP [AP Latin: Virgil]

Grade 12 **1 credit**

Prerequisite: Latin III / Latin III - Honors

Latin IV - AP develops students' ability to read, translate, analyze, and interpret Latin text. It follows one of two syllabi, determined by the instructor: Virgil's Aeneid or Latin Literature (Cicero, Horace, or Ovid). 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 poem's or argument's construction, determining meter, and sight reading. It is recommended that students in this course take the AP Exam when it is offered in May.

World Languages

529M♥★

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.

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.

5300★

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.

5301♥★

Russian I – Honors

Grades 9, 10, 11, 12 1 credit

Though the content is the same as Russian I, 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.

5310★

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.

5311♥★

Russian II – Honors

Grades 10, 11, 12 1 credit

Prerequisite: Russian I / Russian I - Honors

Though 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.

532M★

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.

534M♥★

Russian III – Honors

Grades 11, 12 1 credit

Prerequisite: Russian II / Russian II - Honors

Though 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.

53151♥★

Russian IV – Honors

Grade 12 1 credit

Prerequisite: Russian III

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.

5400★■

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.

5401♥★

Spanish I – Honors

Grades 9, 10, 11, 12

1 credit

Though the content is the same as Spanish I, 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.

5410★■

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.

5420♥★

Spanish II – Honors

Grades 9, 10, 11, 12

1 credit

Prerequisite: Spanish I / Spanish I - Honors

Though 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.

543M★■

Spanish III

Grades 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.

544M♥★

Spanish III – Honors

Grades 10, 11, 12

1 credit

Prerequisite: Spanish II / Spanish II - Honors

Though 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.

World Languages

546M♥★

Spanish IV – Honors

Grades 11, 12

1 credit

Prerequisite: Spanish III / 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.

547M♥★■

Spanish V – AP Spanish Language

Grade 12

1 credit

Prerequisite: Spanish IV / 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.

548M♥★

Spanish V – AP Spanish Literature

Grade 12

1 credit

Prerequisite: Spanish IV / 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.

549M♥★

Intermediate Special Topics in Spanish – Honors

Grades 11, 12

1 credit

Prerequisite: Spanish III

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.

550M♥★

Advanced Special Topics in Spanish – Honors

Grades 11, 12

1 credit

Prerequisite: Spanish IV, 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.

5099

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 English language 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.

Course Index

ADVANCED RESEARCH

Independent Research I, II - G/T . . . .	.60
Intern/Mentor Program I, II - G/T . . . .	.60

CAREER AND TECHNOLOGY EDUCATION

Business and Computer Management Systems 62

Adv. Accounting and Finance - Honors . .	.62
Advanced Data Structures - G/T . . . .	.62
Advanced Marketing - Honors . . . . .	.62
Advanced Object-Oriented Design - G/T .	.62
Business Design and Development - G/T .	.63
Computer Science A - AP . . . . .	.63
Exploring Computer Science - Honors . .	.63
Laboratory Assistant - BCMS . . . . .	.63
Principles of Accounting and Finance -	
Honors . . . . .	.63
Principles of Business and Management .	.63
Principles of Java Programming - G/T . .	.63
Principles of Marketing - Honors . . . .	.63
Computer Science Principles - AP . . . .	.63

Career Research and Development. . . . 64

Career Research and Development I, II .	.64
Site-based Work Experience . . . . .	.64

Engineering and Technology Education 65

Advanced Design Applications . . . . .	.65
Advanced Technological Applications . .	.65
PLTW Computer Integrated	
Manufacturing - G/T . . . . .	.66
PLTW Digital Electronics (DE) - G/T . .	.66
Engineering Design. . . . .	.65
PLTW Engineering Design and	
Development (EDD) - G/T . . . . .	.66
Foundations of Technology. . . . .	.65
PLTW Engineering Design - G/T . . . .	.66
PLTW Principles of Engineering (POE) - G/T	.66

Family and Consumer Sciences 67

Advanced Culinary Science and Restaurant	
Operation . . . . .	.67
Culinary Sciences . . . . .	.67
Field Experience in Culinary Science. . .	.67
Field Experience in Education . . . . .	.67
Field Experience in Education - G/T . . .	.67
Food and Nutrition Technology . . . . .	.68
Foundations of Curriculum and Instruction.	.68
Foundations of Fashion and Interior Design	.68
Human Growth and Development - Honors.	.68
Teaching as a Profession - G/T. . . . .	.68

CENTRALIZED ACADEMY COURSES (Offered only at the ARL) 69

Academy of Finance I, II G/T . . . . .	.69
Animation and Interactive Media I, II .	.69-70
Advanced Architectural Design. . . . .	.69
Advanced Graphic Design G/T . . . . .	.69
Advanced Geographic Information Systems .	
and Remote Sensing . . . . .	.69

Aerospace I - G/T . . . . .	.69
Aerospace II - G/T . . . . .	.70
Architectural Design . . . . .	.70
Automotive Technology I, II . . . . .	.70
Biotechnology I, II G/T . . . . .	.70
Career Research and Development I, II .	.71
Certified Nursing Assistant: Theory and	
Clinical . . . . .	.71
Clinical Research in Allied Health - Honors.	.71
Computer Networking I, II G/T . . . . .	.71
Construction Technology I . . . . .	.71
Construction Technology II . . . . .	.72
Emergency Medical Technician: Basic and	
Clinical . . . . .	.72
Foundations of Homeland Security and	
Emergency Preparedness . . . . .	.72
Foundations of Health Care - Honors . .	.72
Geographic Information Systems and Remote	
Sensing . . . . .	.72
Geospatial Applications Worksite Experience .	.72
Graphic Design I G/T . . . . .	.72
Introduction to the Hotel and Restaurant	
Management Industry. . . . .	.73
Management and Leadership in Hotels	
and Restaurants . . . . .	.73
Networking Essentials - Honors . . . . .	.73
PC Software and Hardware. . . . .	.73
Systems Engineering Innovation - G/T . .	.73
Systems Management Solutions - G/T. . .	.73

JUNIOR RESERVE OFFICERS

TRAINING CORP (JROTC)

JROTC Army I, II, III, IV, Advanced . .	.74
JROTC Air Force I, II, III, IV, Advanced .	.74

ENGLISH

Advanced Composition. . . . .	.79
African American Literature . . . . .	.79
College Readiness. . . . .	.79
English 9 Courses. . . . .	.76
English 10 Courses . . . . .	.76-77
English High School Assessment (PARCC)	
Mastery . . . . .	.77
English 11 Courses . . . . .	.78
English 12 Courses . . . . .	.78
Humanities I, II - G/T (English). . . . .	.79
High School English Seminar . . . . .	.77
Humanities III - AP (English)	
[AP English Language and	
Composition] . . . . .	.79
Humanities IV - AP (English)	
[AP English Literature and	
Composition] . . . . .	.80
Journalism I, II, III -Honors, IV - Honors.	.80

Laboratory Asst. - English Language Arts.	.81
SAT Preparation Course . . . . .	.80
Speech Communication I. . . . .	.80
Speech Communication II . . . . .	.81
Yearbook I, II, III - Honors, IV - Honors .	.81

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES PROGRAM (ESOL)

ESOL American Government . . . . .	.85
ESOL Entering English Language	
Development, A, B . . . . .	.83
ESOL Entering Literacy Development, A, B .	.83
ESOL English Language	
Development I, IA, IB. . . . .	.84
ESOL English Language Development II,	
II A, II B . . . . .	.84
ESOL English Language	
Development III, III A, III B . . . . .	.85
ESOL English Literature and	
Composition I, IA, IB. . . . .	.83
ESOL English Literature and	
Composition II, IIA, IIB . . . . .	.84
ESOL Health. . . . .	.85
ESOL Introduction to US History . . . .	.84
ESOL Modern World History. . . . .	.85
ESOL Tutorial I, IA, IB . . . . .	.84
ESOL Tutorial II. . . . .	.85
ESOL United States History. . . . .	.85

FINE ARTS

ART

Art I: Foundations of Studio Art . . . . .	.87
Art II: Developing Ideas in Media . . . .	.87
Art II: Developing Ideas in Media - G/T .	.87
Art III: Portfolio Dev. - Honors . . . . .	.87
Art III: Portfolio Dev. - AP [AP Studio Art:	
Drawing, 2-D Design, and 3-D Design]	.88
Art IV: Personal Directions in Art	
Studio - Honors . . . . .	.88
Art IV: Personal Directions in Art Studio	
- AP [AP Studio Art: Drawing,	
2-D Design, and 3-D Design] . . . . .	.88
Art History - AP . . . . .	.88
New Forms in Art . . . . .	.88
Photography I: Developing Ideas in	
Photography, G/T . . . . .	.88-89
Photography II: Portfolio	
Development - Honors . . . . .	.89
Photography II: Portfolio Development - AP	
[AP Studio Art: 2-D Design] . . . . .	.89
Photography III: Personal Directions in	
Photography - Honors . . . . .	.89
Photography III: Personal Directions in	
Photography - AP [AP Studio	
Art: 2-D Design] . . . . .	.89

Course Index

DANCE EDUCATION

Dance I, II, III	90-91
Dance IV, G/T	91
Dance Company, G/T	91
Junior Dance Company, G/T	91

MUSIC

Band - Concert	92
Band - Symphonic/Marching.	92
Band - Symphonic Winds/Marching.	93
Band - Wind Ensemble/Marching.	93
Band - Wind Ensemble/Marching - G/T.	93
Chamber Choir, G/T.	94
Chorus	94
Concert Choir, G/T	94
Guitar I, II, III/IV - Honors	95
Instrumental Ensemble	93
Jazz Ensemble	93
Music Technology I, II	94-95
Music Theory I, II - AP.	96
Music and Society	96
Percussion Ensemble	93
Piano I, II, III/IV - Honors.	96
String Ensemble	95
String Orchestra, G/T	95
Vocal Ensemble, G/T.	94

THEATRE ARTS

Musical Theatre I, II, II - G/T	98
Musical Theatre III, III - G/T	99
Technical Theatre I, II - G/T, III - G/T	99
Theatre Arts I, II, III	97
Theatre Arts III - G/T, IV, IV - G/T	98

HEALTH EDUCATION

Current Health Issues.	101
Health	101

STUDENT SERVICES

Student Services Office Assistant/Tutor	101
---	-----

MATHEMATICS

Advanced Algebra and Functions.	104
Business Calculus - G/T	106
Calculus AB - AP	106
Calculus C/Multivariate Calculus - AP [AP Calculus BC].	106
Computer Science A - AP [AP Computer Science]	106
Algebra I	103
Algebra I Seminar	103
Algebra II.	104
Algebra II - G/T	104
Algebra II Seminar	104

Geometry	103
Geometry Seminar	104
Geometry - G/T	104
Differential Equations - G/T.	106
Discrete Mathematics G/T.	105
Financial Literacy.	104
Laboratory Assistant - Mathematics	106
Mathematical Analysis - Honors.	105
Mathematical Design, G/T.	105
Precalculus - G/T.	105
SAT Preparation Course	104
Statistics - AP	105
Trigonometry - Honors	105

MEDIA

Laboratory Assistant - Media	108
Television	108

PHYSICAL EDUCATION

Aerobic Conditioning and Weight Training I, II	110
Lifetime Fitness 9.	110
Specialty Sports.	110
Sport for Life	110
Strength and Conditioning I, II, III	111

READING

Reading.	113
Strategic Reading.	113

SCIENCE

Anatomy and Physiology	117
Astronomy	117
Biology Courses.	115-116
Biology - AP	116
Chemistry, G/T, AP	116-117
Earth and Space Science Courses.	115
Environmental Science, AP.	117
Forensic Science	117
Introduction to Chemistry and Physics.	118
Laboratory Assistant - Science	119
Marine Science	118
Physics	118
Physics 1 - AP	118
Physics 2 - AP	118
Physics C: Mechanics - AP.	119
Physics C: Electricity and Magnetism - AP.	119

SOCIAL STUDIES

African-American Studies	123
American Government Courses	122
Ancient and Medieval History	123
Anthropology.	123

Comparative Government and Politics - AP	124
European History - AP.	124
Far Eastern Studies	124
Government High School Assessment (HSA) Mastery.	122
Government, Law and Public Administration	127
Government and Politics - AP [AP United States Government and Politics]	123
Human Geography - AP	124
Humanities I - G/T (Social Studies)	124
Humanities II/Government and Politics - AP (Social Studies) [AP Government and Politics]	124
Humanities III/World History - AP or U.S. History - AP (Social Studies) [AP World History or AP United States History].	124
Humanities IV - G/T (Social Studies)	125
Laboratory Assistant - Social Studies.	126
Latin American Studies.	125
Law and the Citizen	125
Leadership I	125
Leadership II/Community Service	125
Leadership I/II	125
Macroeconomics - AP	126
Microeconomics/Macroeconomics - AP	125
Microeconomics - AP	125
Modern World History Courses	123
Native American Cultures	126
Political Science.	126
Psychology Courses.	126
Sociology	126
United States History Courses	121-122
World History AP	123
World Religions	126

SPECIAL EDUCATION

Academic /Life Skills.	129
Braille.	129
Peer Assistant/Tutor	130
Resource Classes	129
Tutorial	130
Work Study.	130

WORLD LANGUAGES

American Sign Language, I, II	132
Chinese Courses	132-133
French Courses	133-135
German Courses	135-136
Italian Courses	136-137
Lab Assistant - World Languages	141
Latin Courses.	138-139
Russian Courses	139
Spanish Courses	140-141

Four Year High School Plan

Cut along dotted line.

Graduation Requirements

English	4 Credits	Program Choice: World Language (2 Credits) OR American Sign Language (2 Credits) OR Advanced Technology (2 Credits) OR Career Academy (Advanced Technology Completer) (4 Credits)	Additional Requirements: <ul style="list-style-type: none"> • Service Learning • Career Preparation • 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		
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	
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	

Student Name: _____

Directory of High Schools

Atholton

6520 Freetown Road
Columbia, MD 21044
JoAnn Hutchens, Principal
www.hcpss.org/ahs
410-313-7065 (school)
410-313-7068 (counseling)

Centennial

4300 Centennial Lane
Ellicott City, MD 21042
Claire Hafets, Principal
www.centennialeagles.org
410-313-2856 (school)
410-313-2857 (counseling)

Glenelg

14025 Burntwoods Road
Glenelg, MD 21737
Karl Schindler, Principal
www.hcpss.org/ghs
410-313-5528 (school)
410-313-5535 (counseling)

Hammond

8800 Guilford Road
Columbia, MD 21046
Marcia Leonard, 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
David Burton, Principal
www.hcpss.org/lrhs
410-313-7117 (school)
410-313-7412 (counseling)

Marriotts Ridge

12100 Woodford Drive
Marriottsville, MD 21104
Adrian Kaufman, Principal
www.hcpss.org/mrhs
410-313-5568 (school)
410-313-5446 (counseling)

Mt. Hebron

9440 Old Frederick Road
Ellicott City, MD 21042
Andrew Cockley, Principal
www.mthebron.com
410-313-2880 (school)
410-313-2883 (counseling)

Oakland Mills

9410 Kilimanjaro Road
Columbia, MD 21045
Karim Shortridge, Principal
www.hcpss.org/omhs
410-313-6945 (school)
410-313-6950 (counseling)

Reservoir

11550 Scaggsville Road
Fulton, MD 20759
Patrick Saunderson, Principal
www.hcpss.org/reservoir
410-888-8850 (school)
410-888-8860 (counseling)

River Hill

12101 Clarksville Pike
Clarksville, MD 21029
Kathryn McKinley, Principal
www.hcpss.org/rhhs
410-313-7120 (school)
410-313-7400 (counseling)

Wilde Lake

5460 Trumpeter Road
Columbia, MD 21044
James LeMon, 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
Rick Robb, Administrator
410-313-6998 (school)

Cedar Lane School

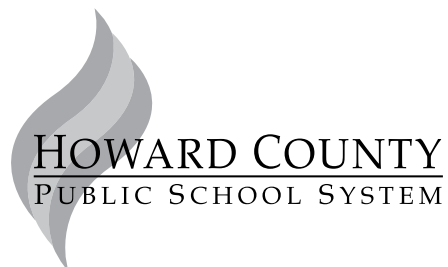
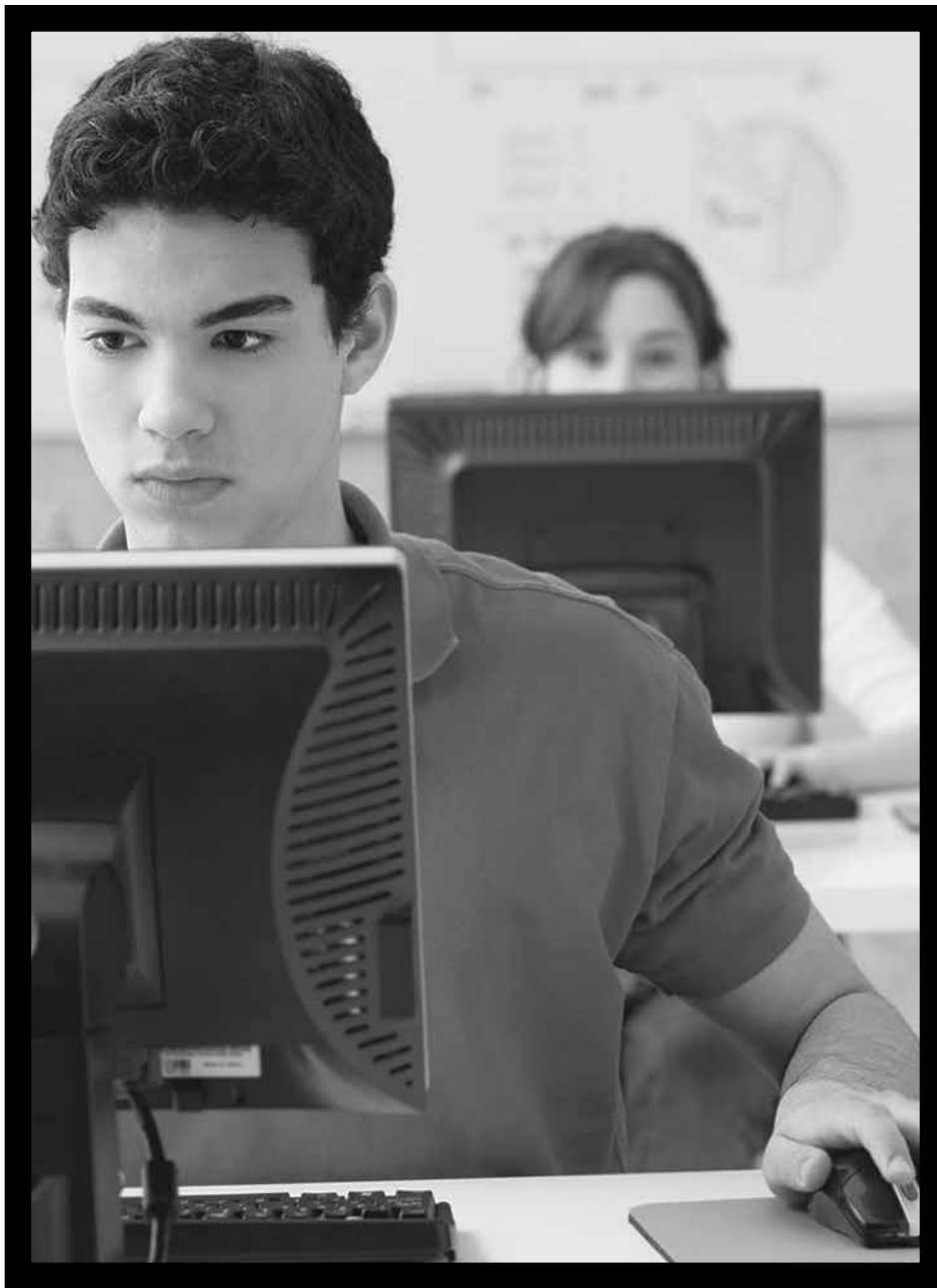
11630 Scaggsville Road
Fulton, MD 20759
Paul Owens, Principal
410-888-8800 (school)

Homewood Center

10914 Clarksville Pike
Ellicott City, MD 21042
Tina Maddox, 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



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