MONTGOMERY COUNTY PUBLIC SCHOOLS



HIGH SCHOOL Program of Study

2027–2028

FOR STUDENTS GRADUATING IN 2031



Montgomery County Public Schools
UNLEASHING POTENTIAL

November 2026

Dear High School Students:

Montgomery County Public Schools (MCPS) is committed to ensuring that every student graduates from high school prepared for success in college, career, and life. Our high schools offer a wide range of rigorous courses, specialized programs, and opportunities designed to help you explore your interests, develop your talents, and prepare for your future.

The 2027–2028 High School Program of Study is a resource to help students and families navigate these opportunities and make informed decisions throughout your high school experience. Whether you are preparing to enter ninth grade or planning your next steps toward graduation, this guide provides information about the courses, programs, and academic pathways available across MCPS. I encourage you to use this resource throughout your high school journey as you explore new interests, challenge yourself academically, and work toward your personal goals.

Beginning with the 2027–2028 school year, MCPS is introducing a regional model for specialized programs, expanding how you access opportunities aligned with your interests and career aspirations. Through this model, you will have opportunities to explore specialized Center Programs within your assigned region, alongside the courses and programs available at your home school. For students attending these specialized programs, the Program of Study will serve as a resource for planning your four-year high school experience, including course selections and academic pathways that support your interests and future goals.

An important part of this journey is developing and maintaining a six-year academic and career plan. This planning process encourages you to think beyond individual course selections and consider how your academic experiences connect to your goals for high school and the years following graduation. You should use the Program of Study to engage in ongoing conversations with your parents and caregivers, teachers, and school counselors about course selections, graduation requirements, specialized programs, and postsecondary opportunities. School counselors are available to provide guidance and help you make thoughtful decisions as your interests and aspirations evolve.

MCPS is fortunate to have highly skilled and dedicated teachers, principals, school counselors, and support staff who are committed to helping every student succeed. Preparing students to become knowledgeable, engaged, and productive members of a global society is a responsibility we take seriously. We ask you to approach your education with curiosity, determination, and a willingness to explore the many opportunities available to you.

I encourage you to challenge yourself through rigorous coursework, pursue programs that inspire you, and take an active role in planning your future. Your high school experience is an opportunity to discover your strengths, develop new interests, and build a foundation for success beyond graduation.

As you begin or continue this important journey, I extend my best wishes for a rewarding and successful school year.

Sincerely,

Thomas W. Taylor, Ed.D., M.B.A.
Superintendent of Schools

2027–2028

Montgomery County Public Schools

HIGH SCHOOL PROGRAM OF STUDY

FOR STUDENTS GRADUATING IN 2031



Montgomery County Public Schools
UNLEASHING POTENTIAL

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Rockville, Maryland

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LEGEND OF COURSE TYPES

AL (⚡)	Advanced-Level
AP	Advanced Placement
CM	Certificate of Merit
DP	Double Period
FA	Visual & Performing Arts
GC (★)	General Course
H (↗)	Honors
IB	International Baccalaureate
NCAA	NCAA Initial Eligibility Clearinghouse Approved Core Course
POS	Program of Study
NGSS	Next Generation Science Standards
TE	Technology Education
TP	Triple Period
🎓	Content-area Graduation Requirements

Preface

This Program of Study includes specific requirements for graduation. Students graduating in 2031 should keep this copy of the reference for graduation requirements.

The *2027–2028 Montgomery County Public Schools (MCPS) High School Program* provides students and parents/guardians with information about high school courses, programs, and career readiness programs of study. This catalog contains information about graduation requirements, required state assessments, internships, opportunities for dual enrollment in college, and special programs.

Course selection in high school is critical to the realization of career and higher-education goals. Students should talk to their teachers and school counselor about the courses they need to meet their individual goals.

MCPS offers several hundred interesting and rewarding courses that help prepare students for the demands of the postsecondary world of college and careers. The *2027–2028 MCPS High School Program of Study* contains all approved courses offered in MCPS. Each MCPS high school offers a wide selection of these courses. Students and parents/guardians should work together to review the course offerings provided at their and in their Region, the graduation requirements, and other information in this catalog.

Throughout this Program of Study, you will find URLs directing you to MCPS websites that contain program information, and Montgomery County Board of Education policies or MCPS regulations. In addition, students should review the *MCPS Student Code of Conduct, Student's Guide to Rights and Responsibilities in MCPS, Guidelines for Respecting Religious Diversity, and Guidelines for Student Gender Identity* found at *www.montgomeryschoolsmd.org/students/rights/* as well as your individual school's *Code of Conduct*.

All course Program of Study information is available online. To access the online course Program of Study, go to *https://www.montgomeryschoolsmd.org/curriculum/programs-of-study/*



MARYLAND DIPLOMA REQUIREMENTS

The state of Maryland authorizes one diploma for all high school graduates, based upon successful fulfillment of four categories of requirements: enrollment, course credit, student service learning (SSL), and Maryland assessments. Students must satisfactorily complete four years beyond Grade 8 to meet the enrollment requirement. All other requirements are summarized in the table below. Please consult the online MCPS course catalog for 2026-2027 at *http://coursecatalog.montgomeryschoolsmd.org/Home/PlanningTools* or your school counselor for further information.

College and Career Readiness (CCR)

The *Blueprint for Maryland's Future* is landmark legislation passed in February 2021. Its ultimate goal is to transform Maryland's education system into a world-class model that is competitive both nationally and internationally over the next decade. The Blueprint requires all middle and high school students to receive individualized career advising services and to be assessed for college and career readiness (CCR) by the end of Grade 10 using state-identified measures. Students who do not meet the CCR standard by the end of Grade 10 will receive support towards CCR in grades 11 and/or 12 and will be reassessed (using the same or a different state approved measure) prior to graduation. School counselors and staff will work closely with students to determine the best support pathway for each individual. Students who achieve CCR status will have access to Advanced Placement (AP), Career and Technical Education (CTE), International Baccalaureate (IB), and approved Montgomery College (MC) courses via dual enrollment at no cost per the state approved guidelines. To see the full list of approved Maryland CCR standards, visit the MCPS website and search "CCR."

Six Year Plan

As part of the Blueprint for Maryland's Future, all Maryland students in Grades 6–12 are expected to develop and maintain an individualized Six-Year Plan. The Six-Year Plan serves as a living academic and career roadmap that helps students connect their interests, strengths, coursework, career exploration, and postsecondary goals. The Six-Year Plan is intended to be reviewed and updated annually as students refine their goals and explore new opportunities. The planning process engages students, families, school counselors, career coaches, educators, and community partners in supporting informed academic and career decision-making.

Course Credits

Students shall be enrolled in Montgomery County Public Schools (MCPS) and have earned a minimum of 22 credits* that include the following (unless a preapproved MCPS alternative is satisfied):

MCPS GRADUATION REQUIREMENTS	
ENGLISH	**4 credits** of organized instruction in comprehension of literary and informational texts, writing, speaking and listening, language, and literacy, of which 1 credit shall be aligned with the Maryland Comprehensive Assessment Program (MCAP) for English.
VISUAL & PERFORMING ARTS	**1 credit** in dance, media arts, music, theatre, or visual art, or a combination of these.
HEALTH EDUCATION	**1 credit in** Health Education A (.5 credit) and Health Education B (.5 credit).

MCPS GRADUATION REQUIREMENTS		
MATHEMATICS	**4 credits**, 1 including instruction in algebra aligned with the MCAP for algebra or 1 or more credits in subsequent mathematics courses for which Algebra 1 is a prerequisite, and 1 with the content standards for geometry. Students must be enrolled in a Math course each year in High School. This may result in students earning more than four credits in Math for graduation.	
PHYSICAL EDUCATION	**1 credit**	
SCIENCE	**3 Next Generation Science Standards (NGSS) credits,** including 1 life science credit aligned to the MCA for science, 1 physical science credit, and 1 credit in Earth/space science or an NGSS course with the topics of Earth/space science integrated.	
SOCIAL STUDIES	**3 credits**, 1 U.S. History credit; 1 World History credit; and 1 National, State, and Local Government credit aligned with the MCA for government.	
COMPUTER SCIENCE, ENGINEERING OR TECHNOLOGY EDUCATION (TE)	**1 credit** designated **TE.** Courses satisfying this requirement are designated in the course catalog and includes the study of computers and algorithmic processes or the application of knowledge, tools, and skills to solve practical problems and extend human capabilities.	
ELECTIVES: The additional credits required for graduation may be fulfilled by 1 of the following three options	**OPTION 1**	**OPTION 2**
	2 credits of the same world language, which may include two credits of American Sign Language **AND 2 credits** in elective courses	Complete a state-approved program of study (POS) **AND a minimum of .5 credit** in elective courses or more depending on POS
STUDENT SERVICE LEARNING (SSL)	75 service-learning hours The SSL requirement is prorated for students enrolling or re-enrolling in MCPS after Grade 6.	
Up-to-date graduation requirements by class may be found at *www.montgomeryschoolsmd.org/curriculum/graduation-requirements.aspx.*		

Enrollment

Students must satisfactorily complete four years of school beyond Grade 8 (for exceptions, see Alternatives to Four-year Enrollment). Students must be enrolled in at least four high school credit courses (this includes dual enrollment options) to be considered full time.

Immunization Requirements

Students who enter Grade 7 in the 2027–2028 school year, or who were new to MCPS and in Grades 8–12, must receive one dose of the Tetanus-diphtheria-acellular pertussis (Tdap) vaccination and one dose of the Meningococcal conjugate vaccination (MCV4) before the first day of school. Students who do not have the required vaccinations within 20 days of starting school must demonstrate proof of vaccination, positive titer results, or proof of a vaccination appointment.

These vaccinations are required by the state of Maryland for school attendance. Acceptable proofs of vaccinations are a computer-generated vaccination record from the student's health care provider or the Maryland Department of Health Immunization Certificate (Form 896), found *https://ww2.montgomeryschoolsmd.org/departments/forms/detail.aspx?formID=442&formNumber=DHMH%20896* that is completed by the health-care provider. Additional information about immunization requirements can be found here: *https://health.maryland.gov/phpa/OIDEOR/IMMUN/pages/back-to-school-immunization-requirements.aspx*

These vaccines are widely available through pediatricians and at pharmacies. Eligible students may also receive these required shots at a local MCPS School Based Health and Wellness Center or by contacting the County's Immunization Program (240-777-1050) for more information.

Maryland System of Testing Academic Readiness/Maryland Comprehensive Assessment Program

During the 2027-2028 school year, high school state assessments will include the Maryland System of Testing Academic Readiness (MSTAR) and the Maryland Comprehensive Assessment Program (MCAP). These assessments consist of tests developed for or adopted by Maryland State Department of Education (MSDE) that are aligned with and measure a student's skills and knowledge as set forth in the content standards for specified courses.

- MSTAR includes state and federal mandated assessments in English Language Arts/Literacy, Science, and Government. Students take these assessments as they complete the corresponding courses. MSTAR also includes the Alternate Assessments for select students.
- MCAP includes state and federally mandated assessments in Mathematics. Students take the Mathematics assessments as they complete the corresponding courses.

MARYLAND SYSTEM OF TESTING ACADEMIC READINESS (MSTAR)/ MARYLAND COMPREHENSIVE ASSESSMENT PROGRAM (MCAP) These assessment requirements are subject to change by Maryland State Department of Education (MSDE).	
ALGEBRA 1	Course credit earned in Algebra 1 **AND** • Take the Algebra 1 assessment
ENGLISH 10	Course credit earned in English 10 or equivalent, or English 10 for EMLs **AND** • Take the English Language Arts/Literacy assessment
GOVERNMENT	Course credit earned in National, State, and Local Government or equivalent **AND** • Take the Government End of Course (EOC) assessment. The EOC is 20% of the National, State, and Local (NSL) Government Semester B grade. AP Government students must take either the AP Government Exam or the MCAP Government EOC assessment.
SCIENCE	Course credit earned in Biology or equivalent, **AND** • Take the Life Science End of Course (EOC) assessment. The EOC is 20% of the Biology Semester B grade. AP Biology students must take the Biology EOC assessment.

[1] *Substitute Test: Students earning qualifying scores on substitute tests (AP/IB) will meet the MCA requirement in that content area.*

[2] *Transfer Credit: Students transferring from outside Maryland public schools may be eligible to meet some MCA content-area requirements with transfer credit.*

For additional information regarding MCPS graduation requirements visit *www.montgomeryschoolsmd.org/curriculum/graduation-requirements/*.

Promotion Regulation

MCPS Regulation JEB-RA, *Placement, Promotion, Acceleration, and Retention of Students* (*ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=264&policyID=JEB-RA&sectionID=10*), requires that high school students earn 5 credits each year in order to be promoted, including specific required credits in English, mathematics, science, and social studies, as indicated in the chart below.

End of:	Total Credits Needed for Promotion to Next Grade	TOTAL CREDITS IN REQUIRED COURSES				
		Math	English	Science	Social Studies	Other Courses—See Options Required for Graduation
Grade 9	5	1	1	0	0	3
Grade 10	10	2	2	1	1	4
Grade 11	15	3	3	2	2	5

Special Education Instruction

Students entering high school with an Individualized Education Program (IEP) will continue to receive specialized instruction, related services, and supports. Supported by the Division of Specialized Support Services and Department of Special Education, our high schools provide a full continuum of service-delivery models designed to support students in acquiring essential academic, social-emotional, and transition skills in the least restrictive environment. Services may include, but are not limited to:

- **Consultative Support—**Collaboration between special education specialists and general education staff to adapt curriculum and instruction.
- **Co-Teaching & In-Class Support—**Direct, specialized instruction delivered alongside general education content within the standard classroom setting.
- **Resource Room Support—**Targeted, direct instruction provided in a smaller setting to focus on specific skill acquisition or specialized interventions.
- **Self-Contained Special Education Classrooms—**Comprehensive, individualized programming within specialized classroom environments tailored to intensive learning needs.
- **Blended Support Models—**A combination of service models tailored to meet the **student's unique strengths and goals.**

If you suspect your child may have an educational disability and requires an evaluation, or if you have questions about special education services, please contact the school counselor or the school's Resource Teacher for Special Education Services (RTSE).

Section 504

A student may be found eligible under Section 504 of the Rehabilitation Act of 1973 and require accommodations, if the student has a physical or mental impairment that substantially limits one or more major life activities. School staff or parents/guardians may request a Section 504 evaluation to determine the student's eligibility under Section 504. For eligible students who require accommodations, the Section 504 team will develop a Section 504 Plan to support equal access at school. Please visit the MCPS website for more information *www.montgomeryschoolsmd.org/departments/ studentservices/Section-504/* or contact the Section 504 Coordinator at 240-242-9363.

Maryland High School Certificate of Program Completion

This certificate is awarded only to students with disabilities who cannot meet the requirements for a diploma, but who meet the standards set forth in the Code of Maryland Regulations §13A.03.02.09, and MCPS Regulation ISB-RA, *High School Graduation Requirements*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=252&policyID=ISB-RA&sectionID=9*. All students will be considered diploma-bound and will be assessed and graded accordingly, unless and until an Individualized Education Program (IEP) team determines that a student meets the criteria to be determined eligible to participate in instruction and assessments aligned with alternate academic achievement standards and the IEP team obtains written consent from the parent/guardian.

Montgomery County Public Schools Certificate of Merit

In addition to the Maryland high school diploma, students who meet the following requirements may be awarded the MCPS Certificate of Merit, a diploma endorsement:

- **Advanced Courses—**Students must earn at least 12 credits in advanced courses designated by MCPS as applicable to the Certificate of Merit (CM). CM courses contribute to a weighted grade point average only when the course also is identified as Advanced Level (AL). All courses to be counted toward the Certificate of Merit must be taken for a letter grade.

- **Mathematics Requirement—**Students must successfully complete and/or receive credit for an MCPS Algebra 2 course.
- **Cumulative Grade Point Average—**Students must obtain at least a 3.0 unweighted cumulative grade point average.

Maryland Seal of Biliteracy

The Maryland Seal of Biliteracy is an award from the Maryland State Department of Education (MSDE), given by participating school systems, that recognizes a student's high level of proficiency in listening, speaking, reading, and writing in one or more languages in addition to English.

High school graduates who can function in two or more languages are equipped with the knowledge and skills to participate successfully in college, careers, and a diverse 21st-century society. The Maryland State Seal of Biliteracy is established to recognize and reward excellence in language learning as measured by rigorous proficiency assessments.

To receive a Maryland Seal of Biliteracy, a student must:

1. Meet one of the assessment requirements from the MSDE's approved list of English language arts/literacy assessments for the Maryland Seal of Biliteracy; and
2. Meet one of the assessment requirements from the MSDE's approved list of world language assessments for the Maryland Seal of Biliteracy.

Link to approved list of English language arts/literacy asesssment: *https://drive.google.com/file/d/13vRImU_5MgEU4U9IPZA7MYgywuszb4h7/view?usp=sharing*

Link to list of world languages assessments: *https://drive.google.com/file/d/13vRImU_5MgEU4U9IPZA7MYgywuszb4h7/view?usp=drive_link*

Art Pathways

Newly created MSDE Comprehensive Arts Pathways

The MSDE Comprehensive Arts Pathway is an award from the Maryland State Department of Education (MSDE) that recognizes students who have excelled in an art form throughout their high school experience. Students must earn 4 credits in 9th-12th grade arts courses through which three (3) levels must be the same media. Pathway completion must also include participation in one of the following:

- MCPS Sponsored Countywide Ensemble or,
- Audition for an MCPS-approved All State Ensemble or,
- Participation in an MCPS-approved Exhibition or,
- Completion of an approved Capstone Arts Project or,
- Completion of an Industry Recognized Credential (IRC) in VPA

AP Capstone

The AP Capstone Diploma is built around two year-long courses: AP Seminar and AP Research that help students build strong research, analysis, collaboration, and communication skills. To earn the AP Capstone Diploma, students must take the two required courses as well as four additional AP courses in grades 9-12 and earn a score of 3 or higher on all AP exams. Through the program, students examine topics from multiple perspectives, conduct investigations, propose solutions, and communicate their findings in written, oral, and visual formats. Students also learn to make connections across subjects and work collaboratively to solve problems. The AP Capstone Diploma provides a college-recognized distinction while preparing students with skills needed for success in college and future careers.

Student Service Learning

The Student Service Learning (SSL) program in MCPS promotes a culture of student involvement and student responsibility through civic engagement. Service learning is a graduation requirement in Maryland. MCPS students must complete a minimum of 75 service-learning hours to graduate. They may begin fulfilling this requirement during the summer after Grade 5 and continue to accrue SSL hours through high school. Students who earn 240 or more SSL hours by the last Friday in March of their senior year will receive a *Certificate of Meritorious Service* and purple tassel at the time of graduation. Academic preparation, service action, and structured reflection are the three core components of service learning that distinguish SSL from traditional volunteering and community-service efforts.

Service learning hours are earned through the following:

- **School Courses**—Successful completion of specific courses identified in this course catalog where the three core components of SSL achieve curricular objectives. The "Course Info" column indicates the number of SSL hours that students will earn per semester for successful completion of the course and the SSL project embedded into the course.
- **School Clubs**—Fully participating and completing the three core components of service learning in service activities promoted by school-sponsored clubs and organizations.
- **Community Organizations and Opportunities (must meet MCPS SSL guidelines)**—Fully participating in opportunities with community organizations following the MCPS SSL guidelines listed on the MCPS SSL website, found at *www.mcps-ssl.org*. MCPS SSL organizations and opportunities are identified on the Montgomery County Volunteer Center (MCVC) web page with the MCPS SSL icon, found at *www.montgomeryserves.org*. Students also may seek approval for other types of service learning by submitting MCPS Form 560-50, *Individual Student Service Learning Request*.

All in-person activities for which SSL hours are desired must occur in a public place and be supervised by an adult representative from a an approved community organization or MCPS staff member. Students may also engage in designated virtual/remote SSL opportunities under the sponsorship of an approved community organization or MCPS staff member. Parents/guardians and relatives may not supervise a student directly. One SSL hour is awarded for every one hour of service outside of the instructional day, with a maximum of 8 hours in a 24-hour period. MCPS Form 560-51, *Student Service Learning Activity Verification*, is required to document all activities for which SSL hours are desired. SSL FAQs and more information is available at the MCPS SSL website *www.mcps-ssl.org* and the MCVC website *www.montgomeryserves.org*. For individual SSL questions, please contact the SSL coordinator in any middle or high school. Visit *https://tinyurl.com/SSLCoordinatorsMS* or *https://tinyurl.com/SSLCoordinatorsHS* to find your SSL coordinator.

Courses and Credits

Each MCPS high school provides comprehensive program of studies that enables all students to earn required graduation credits. All high school courses are one semester long. All courses satisfying graduation requirements must be taken for a letter grade. Upon completion of each semester's work, students earn credit in each course taken—.5 credits for successful completion of a single-period course, 1 credit for a double-period course, and so on. Year-long courses usually have the same name for the two semesters with the title of the first semester followed by "A" or "1" and the second by "B" or "2." Generally, the first semester of a course is a prerequisite for the second semester.

High School Credit for Middle School Students

High school credit courses taken in middle school are included on a high school transcript, but grade points are not calculated into the cumulative GPA. An automated process at the end of each semester will determine which courses to include or exclude resulting in the highest cumulative GPA. Transcripts and the Student Grade and Graduation Credit Report (SGGCR) generated after mid-February will reflect this GPA.

Middle school students must meet the same requirements as high school students by earning a final grade of A, B, C, or D each semester. Additional information is in MCPS Regulation IKC-RA, *Grade Point Averages (GPA) and Weighted Grade Point Averages (WGPA)*, found at *www.montgomeryschoolsmd.org/departments/policy/pdf/ikcra.pdf*.

General, Honors, Advanced-Level Courses

General **(GC)**, Honors **(H),** and Advanced-Level **(AL)**, courses provide opportunities for students to pursue rigorous and challenging studies.

- **General Courses (GC)—**General Courses provide instruction in grade-level content and skills aligned to state and county curriculum standards. These courses are designed for the general student population and emphasize building a solid foundation of core knowledge, skills, and concepts in preparation for continued study in each subject area. On-level courses do not carry the added pace, depth, or GPA weighting associated with Honors, AP, IB, or other advanced-level courses, but they fulfill the same graduation and content requirements.
- **Honors Courses (HC)—**Honors courses provide instruction in grade-level content and skills that are enriched beyond state and county curriculum standards. These courses are designed for students seeking a more rigorous academic experience and emphasize building a deeper, more complex understanding of core knowledge, skills, and concepts in preparation for advanced study in each subject area. Honors courses carry increased pace, depth, and rigor compared to on-level courses, though they do not follow an external, standardized curriculum or exam like Advanced Placement or IB courses. Honors courses carry a .5 GPA weight.
- **Advanced-Level Courses (AL)—**Advanced-level courses provide more rigorous and challenging academic experiences than standard or on-level courses, moving at a faster pace, exploring topics in greater depth, and requiring stronger critical thinking, independent work, and academic skills. This is an umbrella category that includes higher-level courses in a sequence of study — including Career and Technical Education (CTE) sequences as well as other subject-area sequences (such as World Language, Visual and Performing Arts, or STEM pathways) — as well as three nationally or internationally recognized pathways: Advanced Placement (AP) courses, which follow College Board curriculum frameworks and prepare students for standardized AP exams; International Baccalaureate (IB) courses, offered through the IB Diploma Programme, which follow IB curriculum standards and assess students through a mix of external exams and teacher-assessed coursework, either as part of the full IB diploma or as individual courses; and Dual Enrollment, which allows students to take a college course through a partnering institution for simultaneous high school and college credit. Across all advanced-level pathways, students prepare for high-skill careers, college-level work, and advanced study in specific subjects, often with added weight in GPA calculations reflecting the increased rigor. Advanced courses carry a 1.0 GPA weight.
- **College Level (CL)/Dual Enrollment—**Students who successfully complete a college course for dual credit will receive 1 advance level credit on their high school transcript. Read more about Dual Enrollment on page 11.
- **Advanced Placement Courses (AP)—**MCPS offers the College Board approved Advanced Placement courses and corresponding AP exams. A qualifying score on an AP exam may earn the student college credit or advanced standing in the subject in college. All AP courses meet the requirements of and are approved by the College Board Audit Committee and follow the AP course and exam description including the unit guides, the concepts and skills that help students prepare for the AP exams.
- **International Baccalaureate Courses (IB)—**MCPS offers the IB Diploma Program at eight high schools. In addition to seeking the full IB diploma, students can enroll in the individual IB courses. All MCPS IB courses meet the requirements of the International Baccalaureate and include inquiry, concepts, skills, and connections that prepare students to the IB exams and may earn the student college credit or advanced standing in the subject in college..

COURSE-RELATED INFORMATION

Student Withdrawal from a Course

A student-initiated withdrawal may occur when the student and parent/guardian determine that withdrawal will be beneficial to the student. Additional information is in MCPS Regulation JEC-RA, *Student Withdrawals from Classes and School*, found at *ww2.montgomeryschoolsmd.org/departments/policy/pdf/jecra.pdf*. An eligible student's withdrawal (one who is 18 years of age or older or is emancipated) must be reviewed by the counselor and may be discussed with the parents/guardians. If the student is not an eligible student, the student's withdrawal request must be approved by the parent/guardian in writing, reviewed by the counselor, and discussed with the student to ensure that the student understands that withdrawing from the course may result in a possible delay in meeting graduation requirements. Then, the counselor's recommendation is forwarded to the principal for approval.

The student must be presented with alternatives to withdrawing from a course. The student may transfer into another course within the same subject area for which the student has had adequate academic preparation. If no such alternative is available, the student may transfer into an appropriate elective course. Administrators/designees have discretion to adjust student schedules if necessary and as appropriate.

- If a student withdraws from a course before the end of the 25th day of the semester, no notation is made on the student's permanent record or report card.
- If the student withdraws after the 25th school day of the semester in which the class begins, a notation of "W," or "Withdrew," the date of the withdrawal, and the average grade at the time of withdrawal will be entered on the permanent record, transcript, and report card.
- Should the student, with prior approval, transfer from an honors- or advanced-level course to an on-level course in the same subject area (IKC-RA course-level change) after the 25th school day of the semester, no notation is made on the student's permanent transcript, and appropriate credit is awarded for those courses completed successfully. The Division of Teaching and Learning may designate approved on-level transfers for certain courses, which will be set forth in implementation guidance and available from school counselors.

Additional information about withdrawal and student eligibility for extracurricular activities is in MCPS Regulation IKC-RA, *Grade Point Averages (GPA) and Weighted Grade Point Averages (WGPA)*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=227&policyID=IKC-RA&sectionID=9*, and in MCPS Regulation IQD-RA, *Academic Eligibility for High School Students Who Participate in Extracurricular Activities*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=248&policyID=IQD-RA&sectionID=9*.

Other Provisions for Earning Credit

In addition to earning credits during the regular school day and year, students may earn high school credits through summer school, extended-day learning opportunities, work-experience programs, online courses, and college courses. **Advance permission from the principal or designee is required** in all cases involving other provisions for earning credit.

Online courses must be approved by MSDE and MCPS. See the list of online courses approved by MCPS for credit toward graduation at *www.montgomeryschoolsmd.org/departments/onlinelearning/*.

It is critical that students and their parents/guardians consult with academic advisors/counselors **prior to registering** for courses for which they intend to obtain credits to meet high school graduation requirements. More information about other provisions for earning

credit are discussed in MCPS Regulation ISB-RA, *High School Graduation Requirements*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=252&policyID=ISB-RA&sectionID=9*.

Alternatives to Four-year Enrollment

In recognition of the fact that four-year enrollment in a public high school may not serve the best interests of some students, alternatives are available. Requirements include advance permission from the principal or designee; an alternative plan developed, with enough lead time to allow a decision to be made at least one full semester prior to anticipated enrollment in a specific course or program; and a waiver. Approval may be made contingent on the student's acceptance to an approved college, career and technical education (CTE) or other postsecondary school program. Required forms, reasons for which waivers are approved, and additional information about alternatives to four-year enrollment are discussed in MCPS Regulation ISB-RA, *High School Graduation Requirements*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=252&policyID=ISB-RA&sectionID=9*.

Taking Courses Not Available at the Student's Home School

Students interested in taking a course not available at their home school should work with their school counselor where the course is available within their region between February and no later than the first week of August. The home school will coordinate with the school offering the course to determine availability, scheduling, enrollment requirements, and principal approval from both schools. Transportation arrangements will be made by the family.

Attendance

A commitment to school attendance, on the part of both students and parents/guardians, is an essential component of a high-quality learning experience. Parents/guardians and school personnel are expected to do everything possible to ensure each student's regular attendance. Students should attend all scheduled classes and approved educational activities and are responsible for completing all assigned work on time. Students should be enrolled in a full-day program or spend a comparable period of time in an alternative education program or activity approved by the student's parent/guardian and principal. See MCPS Regulation JEA-RA, *Student Attendance*, at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=258&policyID=JEA-RA&sectionID=10* and G*uidelines for the Continuing Education for Pregnant and Parenting Students*, at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=237&policyID=IOE-RA&sectionID=9*.

GRADING AND REPORTING

The Board of Education is committed to maintaining rigorous performance and achievement standards for all students and to providing a fair process for evaluating and reporting student progress that is understandable to students and their parents/guardians and relevant for instructional purposes. The Board Policy IKA, *Grading and Reporting* (*ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=224&policyID=IKA-RA&sectionID=9*), and accompanying MCPS Regulation IKA-RA, *Grading and Reporting* (*https://ww2.montgomeryschoolsmd.org/departments/policy/pdf/master%20ika-ra.pdf*), set forth expectations and guidance. The office of the Chief Academic Officer in the Division of Teaching and Learning publishes procedures at *www.montgomeryschoolsmd.org/info/grading/*

Procedures for Grading

Grading procedures will be applied consistently within and among schools. Grading practices must include clear and timely communication, alignment with curriculum, accurate reflection of student achievement, and fair representation of student performance. Grading practices must be fair and manageable and support effective teaching and learning. Grades on report cards reflect academic achievement in relation to course expectations, as outlined in the MCPS curriculum. Extra credit may not be used. Course specific procedures for grading are defined, used consistently, and explained clearly to students and parents/guardians in writing at the beginning of a semester or school year. Additional information about grading and reporting can be found at *https://ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=223&policyID=IKA§ionID=9*

Districtwide Assessments

Required assessments administered districtwide are one component of the body of evidence.

- A districtwide assessment is required to be given at designated times in identified grade levels and identified middle and high school courses.

Reporting Student Progress

Teachers will provide students and parents/guardians with information about achievement throughout the marking period. This feedback may take several forms, including the following:

- Report cards
- Interims/progress reports
- Online grade reports
- Parent conferences
- Informal methods of communication
- Teacher feedback

Credit/No Credit Grading Option

- The Credit/No Credit grading option may be used only in courses not specifically required for graduation by MSDE or MCPS.
- Courses taken using the Credit/No Credit option cannot be applied toward a Certificate of Merit.

Grade Point Average (GPA) and Weighted Grade Point Average (WGPA)

Only final course grades and credit reported on high school transcripts are used in determining GPA and WGPA, in accordance with the procedures set forth in MCPS Regulation IKC-RA, *Grade Point Averages and Weighted Grade Point Averages* (*ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=227&policyID=IKC-RA&sectionID=9*). To determine WGPA, an additional quality point will be added to grades of A, B, and C in all Honors, AL, and AP courses only.

A Marking Period Average (MPA), used in determining academic eligibility for interscholastic athletics, is shown on student report cards. The MPA is not cumulative and is not used to establish the GPA or WGPA. For information about conditions under which the MPA applies to interscholastic athletics, please see *https://ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=248&policyID=IQD-RA&sectionID=9*

MCPS does not rank students. See additional information about grading and reporting at *www.montgomeryschoolsmd.org/info/grading/*.

Repeating a Course to Earn a Higher Grade and Repeating a Portion of a Course (Credit Recovery)

Any student who completes a high school course may retake the course for a replacement grade. Eligible students may retake a portion of the course for credit recovery. Grades and credits for courses retaken will be treated as follows, for computing the GPA and WGPA: a) a course may be retaken, no matter the final grade; b) the highest of the grades received shall be entered on the student's transcript and shall be used for the purpose of computing GPA/WGPA; c) students may only replace a course with a course of the same or comparable course code, as authorized by the chief academic office of The Division of Teaching and Learning; or d) if space in a class is limited, students taking a course for the first time have priority for placement in the class over students

retaking the course. Upon completion of the course, their official transcript and GPA/WGPA will reflect only the higher mark earned. Further information can be found in MCPS Regulation IKA-RA, *Grading and Reporting*, found at *ww2.montgomeryschoolsmd.org/departments/policy/detail.aspx?recID=224&policyID=IKA-RA&sectionID=9* and MCPS Regulation IKC-RA, *Grade Point Averages (GPA) and Weighted Grade Point Averages (WGPA)*, found at *ww2.montgomeryschoolsmd.org/departments/policy/pdf/ikcra.pdf*, or by contacting the student's counselor or College and Career Readiness and Districtwide Programs, 240-740-4000.

School Library Media Programs

The school library is more than a place for books, it's a dynamic hub for learning and discovery. School Library Media Programs mission is to promote anti-racist and anti-bias information literacy education while ensuring equitable access to resources that empower students to develop a love of literature and succeed in their college and career goals.

The Public School Library Programs Code of Maryland Regulations (COMAR 13A.05.04.02) requires every public school to have a library program managed by a certified media specialist who provides instruction in digital, media, and information literacy and access to educational resources. MCPS School Library Media Programs are designed to align with these state regulations. Here are some of the ways our program supports the school community:

The guiding principles for a robust school library media program:

- **Supporting Student Success:** Media center staff design engaging reading programs that spark a love of literature and support students' personal and academic information needs. Guided by the Maryland School Library and Digital Learning Standards, library media programs collaborate with teachers to deliver instruction that builds critical thinking, inquiry, and research skills. By equipping students with essential competencies in digital citizenship, media literacy, and information literacy, media staff prepare learners to engage with the online world ethically and responsibly.
- **Innovative Learning Environments:** School libraries are intentionally designed with makerspaces and interactive learning areas to provide applied, hands-on experiences. These environments inspire creativity and develop students' computational thinking and problem-solving abilities.
- **Equity and Diverse Representation:** Library media specialists utilize their expertise to build comprehensive physical and digital collections that ensure equity, accessibility, and diverse representation. This commitment ensures that all students and the school community have access to high-quality, inclusive resources.
- **Community Engagement:** The library is the heart of the school and creates meaningful opportunities for students to connect and learn through clubs, lunchtime activities, and special programs. In alignment with Goal 2 of the MCPS 2025–2030 Strategic Plan, media staff collaborate with community partners to bring guest speakers and authentic career exploration opportunities directly to students. To learn more about current offerings, reach out to your school's media specialist.

Academic Eligibility for Participation in Interscholastic Athletics

As a district committed to nondiscrimination, equity and cultural responsiveness, the Board of Education seeks to balance the state and collegiate expectations with its interest in making interscholastic sports, accessible to as many students as possible. Academic eligibility requirements for high school students participating in interscholastic sports are established in MCPS Regulation IQD-RA, *Academic Eligibility for High School Students Who Participate in Interscholastic Athletics*. Students who have a 2.0 average with no more than one failing grade in the previous marking period will be academically eligible to participate or practice during the next marking period. Eligibility standards become effective as of a student's second year in any high school, as initially determined by their marking period average in the fourth quarter of their first year of high school. Additional information about academic eligibility may be found in Board Policy IQD, *Extracurricular Activities* at *ww2.montgomeryschoolsmd.org/departments/policy/pdf/policy%20iqd%20english.pdf*, and MCPS Regulation IQD-RA, *Academic Eligibility for High School Students Who Participate in Interscholastic Athletics*, at *www2.montgomeryschoolsmd.org/siteassets/schools/high-schools/r-w/rmhs/uploadedfiles/athletics/academiceligibility20.pdf*.

National Collegiate Athletic Association (NCAA) Eligibility Center

The National Collegiate Athletic Association established the NCAA Eligibility Center to serve as the authorizing group for the final review and approval of core courses for freshmen college students who want to participate in intercollegiate athletics in NCAA Division I-A, I-AA, and II colleges and universities. The NCAA Eligibility Center Approved Core Courses are identified in the course catalog with the symbol NCAA. In all cases, the list of eligible courses available on the NCAA Eligibility Center website represents the final determination of acceptable core courses. To learn more about NCAA Approved Core Courses or about NCAA Freshmen Eligibility Standards, contact the local school resource counselor and visit the NCAA-IEC website at *www.ncaa.org/sports/2021/2/8/student-athletes-future.aspx*. Learn more about submitting student information at *www.ncaa.org/sports/2014/12/16/submitting-a-student-s-information.aspx*

Montgomery County Public Schools
Sample Student Planner

This is a sample pathway schedule that may be tailored to meet a student's individual needs. All students must take prescribed English, math, science, social studies, and other courses required for a Maryland high school diploma.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
ENGLISH (4 credits)			
English 9/Honors	English 10/Honors/AP	English 11/Honors/IB/AP	English 12/Honors/IB/AP
MATHEMATICS (4 credits)			
Integrated Algebra 1, Geometry/Honors, ***or*** Algebra 2/Honors	Geometry/Honors, Algebra 2/Honors, ***or*** Precalculus/Honors/AP, ***or*** approved college course	Algebra 2/Honors, Precalculus/Honors/AP ***or*** AP Calculus AB/BC ***or*** Statistics ***or*** IB Math, ***or*** approved college course	Precalculus/Honors/AP, ***or*** IB Math, AP Calculus AB/BC ***or*** AP Statistics/College Level Math Beyond AP Calculus, ***or*** approved college course
SCIENCE (3 credits)			
Biology/Honors ***or*** Earth/space Science Credit	Life Science Credit ***or*** Physical Science Credit ***or*** Earth/space Science Credit	Life Science Credit ***or*** Physical Science Credit ***or*** Earth/space Science Credit	[3]Elective (all content areas) ***or*** Elective Option Coursework
SOCIAL STUDIES (3 credits)			
U.S. History/Honors/AP	National, State & Local Government/Honors/AP	Modern World History/ Honors/AP/IB History	[3]Elective (all content areas) ***or*** Elective Option Coursework
FINE ARTS (1 credit)			
[3]Visual & Performing Arts (Dance/Music/Theatre/Media/ Visual Arts) or Elective (all content areas) or Elective Option Coursework	Visual & Performing Arts (Dance/Music/Theatre/Media/ Visual Arts) or Elective (all content areas) or Elective Option Coursework	[3]Visual & Performing Arts Graduation Credit ***or*** Elective Graduation Option	[3]Elective (all content areas) ***or*** Visual & Performing Arts Graduation Credit
COMPUTER SCIENCE, ENGINEERING OR TECHNOLOGY EDUCATION (TE) (1 credit)			
[2]Technology Education or Elective (all content areas) or Elective Option Coursework	[3]Elective (all content areas) ***or*** Elective Option Coursework	[3]Elective Coursework ***or*** Elective Graduation Option	[3]Elective Coursework ***or*** Elective Graduation Option
HEALTH EDUCATION AND PHYSICAL EDUCATION (1 credit each)			
Physical Education or Elective (all content areas) or Elective Option Coursework	Health Education or Elective (all content areas) or Elective Option Coursework	[3]Elective Coursework ***or*** Elective Graduation Option	[3]Elective Coursework ***or*** Elective Graduation Option
ELECTIVE OPTIONS Students can fulfill graduation requirements by one of the two options			
[1]World Languages Students must take two years of the same world language.	[1]World Languages Students must take two years of the same world language.	[3]Elective (all content areas) OR Elective Option Coursework	[3]Elective (all content areas) OR Elective Option Coursework
[4]Career and Technical Education (CTE) POS	[4]Career and Technical Education (CTE) POS	[4]Career and Technical Education (CTE) POS	[4]Career and Technical Education (CTE) POS

[1] **World Languages:** Students may fulfill World Language graduation option in middle school.
[2] **Computer Science, Engineering or Technology Education (TE):** Students may fulfill Technology Education graduation requirement in middle school.
[3] **Electives:** Elective courses are available for all content areas, including visual & performing arts, technology education, and physical education. Elective coursework varies at each high school and include college courses offerings via dual enrollment. Please check with the school for course availability.
[4] **Career Readiness POS:** Career Readiness POS varies at each high school and include college courses offerings via dual enrollment. l. Please check with the school for program availability.
[5] **Science:** Choose from courses approved for graduation credit to fulfill each category of science credit. Please check the science course options in catalog and approved college courses via dual enrollment.

CORNERSTONE OFFERINGS

MCPS High School Programs

MCPS offers a range of high school programs to meet the unique interests or programmatic needs of students. Various programs are offered at the local high school level or through an application process via the High School Possibility Process in the fall of Grade 8 for the four-year programs during high school. These programs may include enriched/accelerated, thematic, career- readiness, or dual enrollment.

All high schools offer a wide range of robust college and career-readiness programs that prepare students for college and the workforce. For additional information about Cornerstone Offerings offered at a student's home school, please visit the home school website.

Career and Technical Education (CTE) Programs of Study (POS)

Programs of Study **(POS)** are state-approved programs that satisfy the elective graduation option requirements and are designated as CTE POS in this catalog. Each program is designed to help students acquire the specialized knowledge, skills, attitudes, and work habits required for employment and postsecondary education.

Students seeking to enroll in a CTE POS with a Career-Connected Learning component may be required by the employer or sponsoring organization to provide appropriate documentation that may include a social security number and/or proof of citizenship/green card. Please review program information and POS requirements carefully for specific Career-Connected learning component guidelines.

MCPS Regional Career and Technical Education (CTE) Programs

Some CTE POS are offered to high school students through a regional model. These programs are offered as interest-based opportunities to provide students with access to specialized, equipment-intensive resources that are costly and difficult to replicate at other schools.

These programs are available at either Edison, Seneca Valley or Gaithersburg high schools and offer limited seats to students from designated regions of the county. Student participation is determined by an application process. Students in grades 9–11 may apply for programs applicable to their current grade level. The programs to which eligible students may apply include:

- Fire Science and Rescue at Montgomery College Public Safety Training Academy
- Cosmetology
- Automotive Trades Programs
- Construction Trades
- IEC Electrical School to Apprenticeship
- Health Professions
- Culinary Arts
- Some Digital Technology Programs of Study

These are just a few examples of the programming options available. Extensive information about MCPS career readiness programs of study is available online at *www.montgomeryschoolsmd.org/career-readiness/*. For a more complete list and information about the various special programs available to students entering high school and beyond, visit *www.montgomeryschoolsmd.org/curriculum/specialprograms/high/*.

CTE Programs of Study at Thomas Edison High School of Technology (TEHST)

Thomas Edison High School of Technology is the county's only technical high school and provides students the opportunity to access CTE Programs of study that may not be offered in their home high school. The CTE Programs of Study available at Edison are:

- Automotive Technology
- Autobody/Collision Repair
- Hotel Resort Management
- Culinary Arts
- Criminal Justice and Law Enforcement
- Certified Nursing Assistant
- Certified Clinical Medical Assistant
- Networking Systems
- Cosmetology
- Cybersecurity
- Carpentry
- Electrical
- Heating, Ventilation, Air Conditioning (HVACR)
- Masonry
- Plumbing
- Architectural Design and Drafting
- Graphic Communications

Students who are residents of Northern and Central North may apply to the CTE programs at Seneca Valley and Gaithersburg HS. All other students may apply to the CTE programs at TEHST.

The Centers of Montgomery County Public Schools

In addition to the highly engaging and rigorous programming offered at a student's local high school, MCPS has an expanded model for regional program access with numerous specialized Center programs from five thematic areas and opportunities for additional dual enrollment options through Middle College. Students can submit an application to be considered for Center programs within their region of residence. The five themes are ARTS (Aesthetics, Repertoire, Technique & Self-Expression), GLOBE (Global Learning, Opportunity, Biliteracy and Engagement), LEAD (Leadership, Empowerment, Action & Development), MED (Medical Exploration and Discovery), and STEM (Science, Technology, Engineering & Mathematics). Within each theme are various programs that are available on a regional basis. For more information about The Centers of Montgomery County, visit the web site at *www.montgomeryschoolsmd.org/curriculum/regional-programs-and-themes/*.

CENTER FOR AESTHETICS, REPERTOIRE, TECHNIQUE & SELF-EXPRESSION

ANIMATION & GAME DESIGN— Create both two-dimensional and three-dimensional digital experiences for film, television, advertising, virtual reality, and interactive entertainment.
- Eastern Region at Blake High School
- Central South Region at Woodward High School
- Central North Region at Gaithersburg

COMMUNICATION ARTS PROGRAM (CAP) — Hone competencies in critical thinking, social awareness, media, and communications.
- Southern Region at Blair High School

DANCE—Develop technique and artistry through diverse dance styles, choreography, and performances while creating original work and building confidence as a performer.
- Southern Region at Northwood High School
- Eastern Region at Blake High School
- Central South Region at Woodward High School
- Central Region at Richard Montgomery High School
- Central North Region at Gaithersburg High School
- Northern Region at Seneca Valley High School

GRAPHIC DESIGN—Create professional-quality visual content by combining creativity, digital design tools, and real-world problem-solving skills.
- Southern Region at Einstein High School

- Northern Region at Northwest High School

MUSIC — Strengthen performance, composition, and music technology skills through ensemble experiences and creative projects that build artistry and portfolio development.
- Southern Region at Einstein High School
- Eastern Region at Blake High School
- Central South Region at Woodward High School
- Central Region at Richard Montgomery High School
- Central North Region at Quince Orchard High School
- Northern Region at Damascus High School

THEATRE — Explore acting, directing, and stage production through hands-on workshops and performances that build creativity, collaboration, and confidence.
- Southern Region at Northwood High School
- Eastern Region at Blake High School
- Central South Region at Woodward High School
- Central Region at Richard Montgomery High School
- Central North Region at Quince Orchard High School
- Northern Region at Seneca Valley High School

VIDEO & AUDIO PRODUCTION — Develop skills in broadcast media, both in front of and behind the camera.
- Central Region at Churchill High School

VISUAL ART— Create and refine original artwork across multiple media while building technical skills, artistic voice, and a professional portfolio.
- Southern Region at Einstein High School
- Eastern Region at Blake High School
- Central South Region at Woodward High School
- Central Region at Wootton High School
- Central North Region at Quince Orchard High School
- Northern Region at Northwest High School

CENTER FOR GLOBAL LEARNING, OPPORTUNITY, BILITERACY & ENGAGEMENT

CRITICAL LANGUAGES, CULTURES, AND GLOBAL CONNECTIONS (CHINESE)— Combine advanced study in the humanities with deep language learning and cultural immersion. This program is available in the
- Southern Region at Whitman High School
- Eastern Region at Sherwood High School
- Central South Region at Walter Johnson High School
- Central Region at Churchill High School
- Central North Region at Watkins Mill High School
- Northern Region at Clarksburg High School

HUMANITIES— Explore history, literature, and philosophy through interdisciplinary courses and field experiences. This program is available in the
- Southern Region at Whitman High School
- Eastern Region at Sherwood High School
- Central South Region at Walter Johnson High School
- Central Region at Winston Churchill High School
- Central North Region at Magruder High School
- Northern Region at Poolesville High School

INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAMME— A globally recognized academic program emphasizing critical thinking, inquiry, and intercultural understanding. Additional IB options are explained below in the International Baccalaureate section. As a regional Center Program, the IB Diploma Programme is available in the following regions:
- Southern Region at Bethesda-Chevy Chase High School (Einstein will provide the program for local students only)
- Eastern Region at Springbrook High School
- Central South Region at Kennedy High School
- Central Region at Richard Montgomery High School (Rockville will provide the program for local students only)
- Central North Region at Watkins Mill High School
- Northern Region at Seneca Valley High School

CENTER FOR LEADERSHIP, EMPOWERMENT, ACTION & DEVELOPMENT

GLOBAL ECOLOGY AND LEADERSHIP— Investigate ecosystems, climate systems, and human impact through field research, interdisciplinary projects, and service learning that promote environmental stewardship. This program is available in the
- Northern Region at Poolesville High School

JUNIOR RESERVE OFFICERS' TRAINING CORPS (JROTC)— Engage in authentic leadership roles, service-learning projects, and team-based challenges that mirror real-world decision-making and responsibility. This program is available in the
- Eastern Region at Paint Branch High School (Navy)
- Central South Region at Kennedy High School (Navy)
- Central North Region at Gaithersburg High School (Navy) and Magruder High School (Army)
- Northern Region at Seneca Valley High School (Navy)

LEADERSHIP FOR SOCIAL JUSTICE (LSJ)— Explore civic engagement, advocacy, and social change. This program is available in the
- Southern Region at Whitman High School
- Eastern Region at Paint Branch High School
- Central Region at Wootton High School
- Central North Region at Magruder High School
- Northern Region at Damascus High School

LEADERSHIP, LAW, AND CRIMINAL JUSTICE— Explore investigations, public safety, and the justice system through real-world case studies, field experiences, and engagement with law enforcement professionals. This program is available in the
- Southern Region at Northwood High School
- Central South Region at Walter Johnson High School

CENTER FOR MEDICAL EXPLORATION & DISCOVERY

BIOTECHNOLOGY STUDIES— Study DNA, cells, and disease through hands-on labs, research projects, and industry-based simulations

while preparing for certification and college credit. This program is available in the

- Southern Region at Einstein High School
- Central South Region at Kennedy High School
- Central North Region at Quince Orchard High School
- Northern Region at Northwest High School

CLINICAL HEALTHCARE: MEDICAL ASSISTANT— Develop clinical and professional skills through hands-on labs and simulations while preparing for industry-recognized healthcare credentials. This program is available in the

- Southern Region at Einstein High School
- Eastern Region at Paint Branch High School
- Central South Region at Kennedy High School
- Central Region at Rockville High School
- Central North Region at Quince Orchard High School

CLINICAL HEALTHCARE: PHARMACY TECHNICIAN— Learn how medications are prepared and dispensed through lab practice and simulations while building skills toward industry certification and healthcare careers. This program is available in the

- Northern Region at Clarksburg High School

MEDICAL SCIENCE— Build a strong foundation in biology, anatomy, and research through labs, simulations, and career-connected learning. This program is available in the

- Eastern Region at Paint Branch High School
- Central South Region at Wheaton High School
- Central Region at Rockville High School
- Northern Region at Clarksburg High School

CENTER FOR
SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH

AVIATION— Study the aviation and aerospace industries, building skills to become a pilot or work with unmanned aircraft systems. This program is available in the

- Central North Region at Magruder High School

CYBERSECURITY—Design and secure computer networks through hands-on labs and simulations while preparing for industry certifications and real-world IT careers. This program is available in the

- Southern Region at Blair High School
- Eastern Region at Springbrook High School
- Central South Region at Wheaton High School
- Central Region at Wootton High School
- Central North Region at Gaithersburg High School
- Northern Region at Seneca Valley High School

ENGINEERING— Design, build, and test solutions to real-world problems through collaborative projects, STEM challenges, and hands-on engineering experiences. This program is available in the

- Southern Region at Bethesda-Chevy Chase High School
- Eastern Region at Sherwood High School
- Central South Region at Wheaton High School
- Central Region at Rockville High School
- Central North Region at Magruder High School
- Northern Region at Poolesville High School

ENVIRONMENTAL SCIENCE— Explore ecology and sustainability through hands-on experiences in agriculture and horticulture. Participate in field research, connect learning across different subjects, and complete projects that focus on finding solutions to real-world environmental challenges. This program is available in the

- Southern Region at Northwood High School (Agriculture focus)
- Northern Region at Damascus High School (Horticulture focus)

MACHINE LEARNING AND DATA SCIENCE— Engage in data analysis, statistical reasoning, computer programming, machine learning models, and ethical AI practices. This program is available in the

- Central South Region at Woodward High School

SCIENCE, MATHEMATICS, AND COMPUTER SCIENCE (SMCS)— Integrate science, math, engineering, and computer science through hands-on projects, competitions, and career-connected learning experiences that build strong STEM foundations. This program is available in the

- Southern Region at Blair High School
- Eastern Region at Springbrook High School
- Central South Region at Wheaton High School
- Central Region at Wootton High School
- Central North Region at Gaithersburg High School
- Northern Region at Poolesville High School

THE INTERNATIONAL BACCALAUREATE (IB) DIPLOMA PROGRAM IN MCPS

The International Baccalaureate Diploma Programme is a challenging two-year program for students in Grades 11 and 12 that prepares them for success in college, careers, and a global community. Students study six academic subjects and complete the DP Core, which includes Theory of Knowledge, Creativity, Activity, Service, and the Extended Essay. Through these experiences, students strengthen their critical thinking, research, communication, time-management, and problem-solving skills. They also learn to consider different perspectives, make connections across subjects, and become more independent learners. Succesful completion of the program requirements may earn the student the internationally recognized IB Diploma. The IB Diploma Program is offered at eight MCPS high schools for the local students.

- Albert Einstein HS
- Bethesda-Chevy Chase HS
- John F. Kennedy HS
- Richard Montgomery HS
- Rockville HS
- Seneca Valley HS
- Springbrook HS
- Watkins Mill HS

The following high schools also offer the IB through the GLOBE Center Program to the students in their region through the Center Programs application:

- Bethesda-Chevy Chase HS
- John F. Kennedy HS
- Richard Montgomery HS
- Seneca Valley HS
- Springbrook HS
- Watkins Mill HS

International Baccalaureate Career-related Programme (IB CP)

The International Baccalaureate (IB) Career-related Program (CP) is a flexible framework of international education that combines IB Diploma Program coursework, the CP Core, and a CTE pathway. The CP Core includes the Personal and Professional Skills course, the Reflective Project, Service Learning, and Language Development. Designed for students who want to connect academic learning with a specific CTE pathway, the CP develops critical thinking, communication, and professional skills while preparing students for university, apprenticeships, employments, and lifelong learning. Three high schools offer the IB CP to local students:

- Rockville HS
- Seneca Valley HS
- Watkins Mill HS

International Baccalaureate/Middle Years Programme (MYP)

The MYP is designed for students ages 11 to 16. It provides a framework of learning that encourages students to become creative, critical, and reflective thinkers. The MYP emphasizes intellectual challenge, encouraging students to make connections between their studies in traditional subjects and the real world. It fosters the developmental skills for communication, intercultural understanding, and global engagement—essential qualities for young people who are becoming global leaders. Students engage in research and acquire critical-thinking skills through all subject areas, as well as study a second language. MYP is authorized and offered as a whole-school program for Grades 9 and 10 at

- Bethesda-Chevy Chase High School
- John F. Kennedy High School
- Richard Montgomery High School
- Seneca Valley High School
- Springbrook High School
- Watkins Mill High School

STUDENT ONLINE LEARNING/ ELEARNING

The MCPS Student eLearning program provides opportunities for students to take selected high school courses outside the traditional classroom setting. The program allows students access to online courses for acceleration, flexibility in scheduling, or to retake previously failed courses. Courses taught by MCPS teachers follow a blended learning model, requiring student attendance in synchronous, virtual class meetings and engagement in asynchronous instruction, classwork, and assessments. More information about student online learning/elearning is at *www.montgomeryschoolsmd.org/departments/onlinelearning/*.

ADDITIONAL LEARNING OPPORTUNITIES

George B. Thomas, Sr. Learning Academies

Budget dependent: Nine MCPS schools host The George B. Thomas, Sr. Learning Academy, Inc. programs on Saturday mornings (Saturday School), providing enrichment, tutoring, and mentoring for students in Grades Pre-K–12. The George B. Thomas, Sr. Learning Academy, Inc. was established in 1986 by the Mu Nu Chapter of Omega Psi Phi Fraternity, as an outgrowth of the Saturday School Initiative of Blacks United for Excellence in Education. Saturday Schools are open to all students, regardless of their home school. High school sites include Blair, Clarksburg, Einstein, Gaithersburg, Northwest, Paint Branch, Rockville, Springbrook, Wheaton and a virtual option. For more information about Saturday School tutoring and the George B. Thomas, Sr. learning academies, contact your local school or visit *www.saturdayschool.org*.

DUAL ENROLLMENT: COLLEGE OPTIONS

MCPS and Montgomery College (MC) have partnered to provide college credit options for college ready students via dual-enrollment opportunities. College ready students may take approved college courses on the college campus or online. All eligible MCPS students may participate in Dual Enrollment (DE) programmatic options that will allow them to complete at least two college courses at no cost during the fall and spring MC semesters, depending on the identified DE option. Select degree programs will require the completion of more courses during the MC winter and/or summer semesters. All college courses taken and successfully completed will receive dual credit by counting toward college and high school credit. Approved higher level college credit courses will appear on the high school transcript as an advanced-level course, unless requested that it not be placed on the transcript during the enrollment process. There are degree dual enrollment programs that allow students the opportunity to earn an associate's degree from MC as well as a Maryland state diploma. More information about all dual enrollment programs is found below and at the following link: *www.montgomeryschoolsmd.org/curriculum/partnerships/dual-enrollment/*.

Early College

The Early College (EC) dual-enrollment program is offered at each MC campus, and provides qualified students with the opportunity to earn an associate's degree in a specific content area. Students apply to the EC program in the fall of 10th grade. Participating students will complete their 11th and 12th grade years of high school while simultaneously completing their first two years of college. The degree programs offered in the 2026-2027 school year are listed below by MC campus.

EARLY COLLEGE PROGRAMS	
Students from any MCPS high school may attend Early College	
Montgomery College, Germantown Campus	A.A. Business A.S. Biological Science A.A.S. Biotechnology A.A. Computer Science A.A.S. Cybersecurity
Montgomery College, Rockville Campus	A.A. Behavioral Health A.A. Business A.A. Business Analytics A.S. General Engineering A.S. Mathematics A.A.T. Elementary Education/Special Education A.S. Biological Science A.S. Chemistry and Biochemistry A.S. Data Science
Montgomery College, Takoma Park Campus	A.A.S Cloud Computing and Networking Technology A.S. Biological Science A.S. Nursing A.A. Computer Science and Technologies
East County Education Center	A.A.S. Cybersecurity

For more information about the Early College program, please visit *www.montgomeryschoolsmd.org/curriculum/partnerships/early-college.aspx*.

Middle College

In collaboration with MC, MCPS offers a Middle College program at seven high schools. The Montgomery College Middle College (MC2) program is offered at Blake, Northwest, Northwood, Rockville, Watkins Mill, and Woodward high schools and the P-TECH Middle College program is offered at Clarksburg High School. Each Middle College dual enrollment program prepares students to earn a Maryland state high school diploma and college credits toward an associate degree. The college credits are earned through a combination of courses, including Advanced Placement courses and corresponding test scores, and/or MC courses. Students are supported through a progressive transition from a traditional high school experience, to a college-like experience on the high school campus, and finally to full college coursework and experience on the college campus. During this transition, students are provided with dedicated college preparation, including preparation for the college placement and admission assessments. Students will matriculate through a pathway toward an associate's degree, beginning in Grade 9. Students apply to the Middle College programs in the fall of 8th grade.

MIDDLE COLLEGE PROGRAMS	
Montgomery College Middle College (MC2) @ Blake	James Hubert Blake High School
Montgomery College Middle College (MC2) @ Northwest	Northwest High School
Montgomery College Middle College (MC2) @ Northwood	Northwood High School
Montgomery College Middle College (MC2) @ Rockville	Rockville High School
Montgomery College Middle College (MC2) @ Watkins Mill	Watkins Mill High School
Montgomery College Middle College (MC2) @ Woodward	Charles W. Woodward High School
Pathways In Network and Information Technology Program (P-TECH)	Clarksburg High School

For more information about Middle College programs, please visit *https://www.montgomeryschoolsmd.org/curriculum/partnerships/middle-college.aspx*.

Jumpstart to College Pathway

The Jumpstart to College Pathway is an opportunity for high school students to earn college credits using dual enrollment opportunities available through our partnership with Montgomery College (MC) to meet high school graduation requirements and begin their journey toward success in college and beyond.

Students taking advantage of the Jumpstart to College can take prescribed English, mathematics, science, social studies, and other courses required for a Maryland high school diploma.

- Advance level college course grades that appear on the high school transcript will count for advanced credit when calculated into the weighted GPA, just like Advanced Placement (AP) and honors courses.
- Each student's enrollment in any MC course is dependent on the student meeting all requirements, prerequisites, and assessment levels for the course as determined by MC.

For more information about Jump Start, please visit *https://www.montgomeryschoolsmd.org/curriculum/partnerships/jump-start.aspx*.





INTERNATIONAL BACCALAUREATE

The International Baccalaureate provides a continuum of programs that develop knowledge, skills, international-mindedness, and the learner attributes students need for further study, careers, and participation in a global community.

Middle Years Program	**Grades 9 and 10** Builds a common foundation in inquiry, concepts, global contexts, and learning skills.
Diploma Program	**Grades 11 and 12** Provides a broad academic pathway through six subjects and the DP Core: Theory of Knowledge, Creativity, Service, and Action, and the Extended Essay.
Career-related Program	**Grades 11 and 12** Provides an academic and career-focused pathway through DP courses, the CP Core, and a CTE pathway.

A CONNECTED FRAMEWORK FOR INQUIRY, ACADEMIC CHALLENGE, CAREER PREPARATION, AND GLOBAL LEARNING.

WHAT STUDENTS LEARN TO DO

- Ask questions and investigate complex issues.
- Think critically and make connections across subjects.
- Communicate in more than one form, perspective, and language.
- Reflect on learning and apply feedback.
- Develop independence, collaboration, and self-management.

PROGRAM HIGHLIGHTS

- **MYP** uses 8 subjects, school-based assessments with IB criteria and standards, and students complete a Personal Project.
- **DP** includes 6 subjects and the DP Core: Theory of Knowledge course, the Extended Essay, and Creativity, Action, and Service.
- **CP** includes at least 2 DP courses (one HL and one SL), a CTE pathway, and the CP Core: Personal and Professional Skills course, the Reflective Project, Language Development, and Service Learning.

ADVANCED PLACEMENT

The College Board's Advanced Placement courses enable and academically prepares students to pursue college-level studies while still in high school. It is college-level learning, including research, analysis, and communication. Each authorized AP course culminates in an AP exam.

COURSE CHOICE	COLLEGE-LEVEL RIGOR
The College Board offers Advanced Placement courses across 7 subject categories. Students select AP courses aligned to their interests, strengths, and goals.	AP courses introduce students to the depth, pace, and expectations of introductory college coursework. Through challenging learning experiences, students deepen their subject knowledge and develop the critical thinking, analysis, communication, and time-management skills needed for success after high school.

AP CAPSTONE

A pathway to build college-ready and career-ready research analysis, and communication skills.

1. AP SEMINAR	English 10: AP Seminar OR AP Seminar - Students investigate topics from multiple perspectives, evaluate sources and evidence, develop arguments, collaborate, and communicate conclusions. To earn the AP Capstone Diploma, students must earn a score of 3 or higher on the AP Seminar exam.
2. AP RESEARCH	Taken after AP Seminar - Students plan and conduct an independent study or investigation, analyze findings, and present and defend their work. To earn the AP Capstone Diploma, students must earn a score of 3 or higher on the AP Seminar exam.
3. FOUR ADDITIONAL AP COURSES AND EXAMS	Take four additional AP courses of students' choice in grades 9–12. To earn the AP Capstone Diploma, students must earn a score of 3 or higher on the AP Seminar exam.

Montgomery County Public Schools
UNLEASHING POTENTIAL

FOUR YEAR HIGH SCHOOL PLAN

Graduation Requirements For Students Graduating in 2031

This four-year plan is a planning tool. Course selections in subsequent years will depend on courses successfully completed and credits earned in previous years. Students are not required to repeat courses once graduation requirements have been satisfied. For example, a student who earns the required Physical Education credit in Grade 9 does not need to take additional Physical Education courses in Grades 10–12 unless they choose to do so.

COURSES		PROGRAM CHOICE	ADDITIONAL REQUIREMENTS
English	4 Credits	World Language (2 Credits)	75 Service Learning Hours
Social Studies	3 Credits	**OR**	Career Preparation
Mathematics	4 Credits	Career Readiness: Program of Study	Maryland High School Assessment Requirements
Science	3 Credits		
Physical Education	1 Credit		
Health	1 Credit		
Fine Arts	1 Credit		
Computer Science, Engineering, or Technology Education	1 Credit		
^Program Choice	2–4 Credits		
Electives	1–3 Credits		
Total Credits	**22 Credits**		

GRADE 9	
English	
Social Studies	
Mathematics	
Science	
Physical Education	
Health	
Fine Arts	
CTE	
Program Choice	
Electives	
High School Courses taken in Middle School	
Credits Earned	

GRADE 10	
English	
Social Studies	
Mathematics	
Science	
Physical Education	
Health	
Fine Arts	
CTE	
Program Choice	
Electives	
Credits Earned	

GRADE 11	
English	
Social Studies	
Mathematics	
Science	
Physical Education	
Health	
Fine Arts	
CTE	
Program Choice	
Electives	
Credits Earned	

GRADE 12	
English	
Mathematics	
Physical Education	
Health	
Fine Arts	
CTE	
Program Choice	
Electives	
Credits Earned	

COMPUTER SCIENCE, ENGINEERING, OR TECHNOLOGY EDUCATION COURSES

To prepare all students for demands of college, careers, and the rapidly changing 21st century workforce, MCPS provides a variety of engaging, hands-on offerings in computer science, engineering, and technology. In these courses, students apply mathematics, science, and technical knowledge while using computational and design thinking to innovate and solve relevant problems. The interdisciplinary nature of these technical subjects and a problem-based learning approach fosters creativity and critical thinking along with the communication and collaboration skills needed to thrive in the 21st century. MCPS utilizes external curriculum from national organizations such as CodeAI, CISCO Networking Academy and International Technology and Engineering Educators Association (ITEEA) to include experiences in coding, robotics, and engineering design processes.

Many MCPS computer science, engineering, and technology education courses, such as Foundations of Computer Science and Foundations of Engineering and Technology are designed to be accessible to students with no previous experience. For students who have taken technology-related courses in middle school or participated in related extracurricular experiences, consider beginning with AP Computer Science principles or a rigorous career readiness program such as an Information Technology program, Computer Science/CodeAI,), or Project Lead the Way Engineering.

One credit in Technology Education is required for graduation. Courses that satisfy that requirement are listed below.

Foundations of Computer ScienceA/B	Foundations of Technology A/B
AP Computer Science Principles, TEA/B	Foundations of Engineering & Technology A/B
AP Computer Science Java A, TEA/B	Advanced Design Applications A/B
AP Cybersecurity A/B	Advanced Technological Applications A/B
IB Computer Science 1, TEA/B	Introduction to Engineering Design A/B
	Making for Engineers e4usa A/B

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Foundations of Computer ScienceA/B TE	ITC2083A/B	.5	TE		★
Exploring Computer Science courses present students with the conceptual underpinnings of computer science through an exploration of human computer interaction web design computer programming data modeling and robotics while these courses include programming the focus is on the computational practices associated with doing computer science.					
AP Computer Science Principles A/B TE	ITC2084A/B	.5	CM AP (AL) TE	**Corequisite: Algebra I**	ϟ
AP Computer Science Principles explores the broad field of computer science. Students design programs and analyze data using computational thinking. The course also examines the impact of technology on society and fulfills the Technology Education (TE) graduation requirement.					
AP Computer Science Java A TEA/B	ITC2081A/B	.5	CM AP (AL), TE	**AP Computer Science Principles A/B**	ϟ
AP Computer Science A introduces programming using Java. Students design algorithms and solve problems through coding. The course emphasizes object-oriented programming and data structures.					
AP Cybersecurity A/B	ITC2086A/B	.5	CM AP (AL), TE		ϟ
AP Cybersecurity trains students in the field and aligns closely with standard first-year collegiate cybersecurity courses. Students explore defense-in-depth strategies and learn to address specific vulnerabilities, attacks, mitigations, and detection measures across a variety of domains, including physical spaces, computer networks, devices, applications, and data.					
IB Computer Science 1 A/B	ITC 2064A/B	.5	TE IB (AL)	**AP Computer Science JavaA/B**	ϟ
IB Computer Science 1 introduces students to the fundamentals of computational thinking, programming, and core computer science concepts such as systems, networks, and problem solving. Students develop skills in designing algorithms, writing code, and understanding how computing systems function in real-world contexts. Through guided practice and problem-solving tasks, students build the foundation needed for advanced study and independent project development.					
IB Computer Science 2 A/B	ITC 2005A/B	.5	CM IB (AL)	**IB Computer Science 1 A/B**	ϟ
IB Computer Science 2 builds on foundational skills as students apply their knowledge to advanced topics, exam preparation, and the development of a computational solution for real-world problems. Students refine their programming and problem-solving skills while designing, developing, and evaluating a software product as part of the IB internal assessment. With increased independence, students demonstrate their understanding through exams and a completed project that reflects their growth as computational thinkers.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP Networking A/B	ITC2142A/B	.5	AP AL		ϟ
AP Networking is a yearlong, college-level course in which students learn to configure, secure, manage, and troubleshoot computer networks of increasing scale. Through hands-on activities and real-world scenarios, students use industry tools and AI to solve problems, address security vulnerabilities, and build reliable networks. Students develop problem-solving, communication, and collaboration skills while exploring how networks support individuals, organizations, and public infrastructure.					
Foundations of Technology A/B	TEC2000A/B	.5	TE		★
Technological Processes courses provide students with the opportunity to focus on one or more areas of industrial technology applying technological processes to solve real problems and developing the knowledge and skills to design modify use and apply technology appropriately Students may examine case studies explore simulations or design and build prototypes and working models					
Foundations of Engineering and Technology A/B	TEC2016A/B	.5	TE		★
Students will explore the evolution, impact, and applications of technology while developing an understanding of the design process, technological systems, modeling, and technology transfer. Through hands-on problem-solving and design activities, students will apply technological concepts and skills to develop innovative solutions to real-world challenges.					
Advanced Design Applications A/B	TEC2007A/B	.5	TE		★
Technological Processes courses provide students with the opportunity to focus on one or more areas of industrial technology applying technological processes to solve real problems and developing the knowledge and skills to design modify use and apply technology appropriately Students may examine case studies explore simulations or design and build prototypes and working models					
Advanced Technological Applications A/B	TEC2008A/B	.5	TE		★
Emerging Technologies courses expose students to and help them understand new and emerging technologies The range of technological issues covered in this course can vary widely and content covered can be flexible Topics covered may include but are not limited to lasers fiber optics robotics and transportation technologies.					
Introduction to Engineering Design A/B	TEC2017A/B	.5	TE		★
In this introductory engineering course, students delve deeply into the engineering design process, applying applying math, science, and engineering content, skills, and thinking to hands-on projects such as designing a new products or improving an existing product.					
Making for Engineers e4usa	TEC2006A/B	.5	TE		★
Making for Engineers e4usa allows students to build an engineering identity through hands-on, human-centered design challenges. Students work in multidisciplinary teams to address community problems, apply systematic design processes, and showcase their final prototypes publicly.					

ENGLISH LANGUAGE ARTS AND READING

Courses that satisfy these requirements are described below. The goal of the English Language Arts program is to help students develop into literate, thoughtful communicators, capable of controlling language effectively as they negotiate an increasingly complex, information-rich world.

Aligned with the ELA Common Core State Standards, all English courses give students opportunities to refine specific skills and strategies in reading, writing, speaking, listening, and viewing to prepare them for the literacy demands of college and career. Studying a variety of texts that are diverse in terms of cultural perspectives, time periods, and ideas about the human experience, students use evidence and reasoning to write increasingly complex arguments, analyses, and narratives. As they develop more nuanced perspectives, students appreciate literature and media as catalysts for inquiry and reflection, readying them to participate in a civil and democratic society.

Four credits in English are required for graduation: English 9, English 10, English 11, and English 12.

GRADE-LEVEL COURSE PATHWAYS AND PREREQUISITES

GRADE 9	GRADE 10	GRADE 11	GRADE 12
❑ Honors English 9 **OR** ❑ English 9	❑ AP English 10 Seminar **OR** ❑ Honors English 10 **OR** ❑ English 10	❑ AP Language **OR** ❑ AP Literature **OR** ❑ IB English Language and Literature Year 1 **OR** ❑ IB English Literature Year 1 **OR** ❑ Dual Enrollment **OR** ❑ Honors English 11 **OR** ❑ English 11	❑ AP Literature **OR** ❑ IB English Language and Literature Year 2 **OR** ❑ IB English Literature Year 2 **OR** ❑ Dual Enrollment **OR** ❑ Honors English 12 **OR** ❑ English 12

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors English 9	ENG2001A/B	.5	CM, NCAA		↗
Honors English 9 establishes a strong foundation for high school-level literary analysis, argumentation, and purposeful writing through increasingly complex texts and ideas. An enrichment component provides accelerated opportunities for close reading, nuanced interpretation, independent inquiry, and sophisticated writing as students analyze authors' craft, consider diverse perspectives, and refine their own voices through reflection, revision, and rewriting					
English 9	ENG2000A/B	.5	NCAA		★
English 9 establishes the foundation for high school-level literary analysis, argumentation, and purposeful writing. Students study short stories, essays, novels, and other texts as both critical readers and apprentice writers, examining authors' choices and diverse perspectives while developing their own voices through imitation, reflection, revision, and rewriting.					
English 10 AP Seminar	ENG2092A/B	.5	CM, NCAA AP	**English 9**	ϟ
English 10 AP Seminar engages students in college-level reading, writing, and research through the exploration of contemporary issues and a wide range of texts. Students develop critical thinking, collaboration, and academic research skills as they analyze evidence, construct arguments, and communicate their ideas through written essays and individual and team presentations.					
Honors English 10A/B	ENG2002A/B	.5	CM, NCAA	**English 9**	↗
Honors English 10 builds on students' ninth-grade learning through increasingly complex literary, informational, and media texts that strengthen critical thinking, communication, and analysis. An enrichment component provides accelerated opportunities for nuanced interpretation, independent inquiry, sustained discussion, and sophisticated evidence-based writing as students evaluate arguments and perspectives and prepare for college, careers, and civic life.					
English 10A/B	ENG2001A/B	.5	NCAA	**English 9**	★
English 10 builds on students' ninth-grade learning by strengthening critical thinking, communication, and analysis of complex literary, informational, and media texts. Through inquiry, discussion, collaboration, and evidence-based writing, students build knowledge, evaluate arguments and perspectives, and develop the reading, writing, speaking, and listening skills needed for college, careers, and civic life.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP English Language and Composition	ENG2031A/B	.5	CM NCAA AP	**English 10**	ϟ
AP English Language and Composition focuses on nonfiction reading and writing. Students analyze rhetorical strategies and develop evidence-based arguments. The course emphasizes clear writing, revision, and critical thinking.					
Honors English 11, A/B	ENG2005A/B	.5	CM NCAA	**English 10**	↗
Honors English 11 provides an enriched pathway through the grade-level curriculum, engaging students in challenging texts, complex ideas, and independent inquiry. Students deepen their skills in close reading, evidence-based argument, research, discussion, and purposeful communication. The course emphasizes intellectual curiosity, collaboration, and greater responsibility for self-directed learning in preparation for college, careers, and civic life.					
English 11	ENG2004A/B	.5	NCAA	**English 10**	★
This course develops students' independence, creativity, and critical thinking through the exploration of complex texts, ideas, and writing tasks. Students conduct research on topics of interest, consider diverse perspectives across time periods, and communicate their thinking through analytical and creative formats to prepare for college and career.					
AP English Literature and Composition	ENG2032A/B	.5	CM NCAA AP	**English 11**	ϟ
AP English Literature and Composition focuses on reading and analyzing literature. Students study fiction, poetry, and drama from different time periods. The course builds skills in literary analysis and analytical writing.					
Honors English 12	ENG2007A/B	.5	CM NCAA	**English 11**	↗
English 12 offers an enriched exploration of universal themes through classic and contemporary literature, film, and other texts. Students deepen critical thinking, inquiry, research, discussion, and writing as they consider multiple viewpoints and complex, real-world questions. The course encourages independent, thoughtful communication and prepares students for the intellectual demands of life beyond high school.					
English 12	ENG2006A/B	.5	NCAA	**English 11**	★
This course develops students' reading, writing, speaking, listening, and critical-thinking skills through engagement with complex, diverse texts and ideas. Students analyze multiple perspectives, evaluate information in a rapidly changing world, and communicate thoughtful responses to universal themes and contemporary issues in preparation for college and career.					

Electives

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
African American Literature	ENG2039	.5			
This course builds students' language arts and critical-thinking skills through works by African-American authors. Students analyze underlying assumptions and values, consider how shared identities shape perspectives, compare viewpoints, and develop their thinking through discussion and writing.					
Creative Writing	ENG2048A/B	.5		**English 9**	ϟ
English 9 establishes the foundation for high school-level literary analysis, argumentation, and purposeful writing. Students study short stories, essays, novels, and other texts as both critical readers and apprentice writers, examining authors' choices and diverse perspectives while developing their own voices through imitation, reflection, revision, and rewriting.					
Graphic Novel Literature	ENG2040	.5			
This course introduces graphic novels as rich literary texts for critical analysis across genres such as memoir, fiction, historical narrative, and autobiography. Students examine both storytelling and visual craft, using formal conventions of writing and art to support discussion and produce informal and formal critical analyses.					
Myth and Modern Culture	ENG2044A/B	.5			
This course explores myths from ancient Mesopotamia, Egypt, Greece, and Rome through epic poetry, short stories, films, and historical documents. Students compare how cultural environments and social norms shape mythological stories, analyze mythology's influence on art and literature, and demonstrate their learning through research, discussion, and analytical and creative writing.					

Electives (Cont.)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Informative and Argumentative Speaking	ENG2069	.5		**English 10**	ϟ
Students interested in competitive debate and effective speaking will enjoy this course. Students develop their skills in speechwriting, argumentation, and extemporaneous and impromptu speaking. Students experience all phases of speech planning, preparation, delivery, and analysis and become familiar with the protocols of competitive forensics and debate.					
Journalism A: Editing, Gathering, and Reporting the News	ENG2053A	.5			
This journalism course is recommended for all students interested in working on school publications and is required for those seeking editorial positions. Students develop skills in gathering and reporting news, editing, copyreading, and headlining. Students also consider issues such as the responsibilities of the press, libel and slander laws, problems of censorship, and the role of the news media in shaping public opinion.					
Journalism B: Advanced News Writing and Paper Production	ENG2053B	.5		**Journalism A**	
This journalism course is recommended for all students interested in working on school publications and is required for those seeking editorial positions. Students develop skills in gathering and reporting news, editing, copyreading, and headlining. Students also consider issues such as the responsibilities of the press, libel and slander laws, problems of censorship, and the role of the news media in shaping public opinion.					
Techniques of Advanced Journalism	ENG2054	.5	CM	**Journalism A and B**	ϟ
This course emphasizes the interpretive and investigative nature of media. Students examine the similarities and differences of newspaper, news magazine, television, and radio; analyze the unique manner in which each explains and interprets current events; and consider the relative importance of each. Students learn research techniques essential to in-depth reporting and write investigative and interpretative stories.					
Publications Editing, Layout, and Business Management	ENG2055	.5	CM	**Journalism A**	ϟ
Students learn the techniques and knowledge needed to produce and manage school newspapers, yearbooks, and literary magazines. This course is highly recommended for students serving on the editorial staff of these publications. The course provides instruction in all aspects and phases of publications planning, including editing, layout, advertising, and budget.					
Media in Society	ENG2072	.5	CM		ϟ
Media in Society develops students' ability to critically and independently evaluate information from mass media. Through units on image-based culture, media law and ethics, and the political process, students investigate a current media issue in depth while strengthening their research skills.					
Yearbook 1 A/B	ENG2060A/B	.5			
Yearbook is a production-based course in which students collaborate to plan, design, write, edit, photograph, and publish the school's annual yearbook. Students develop skills in visual design, journalism, photography, project management, teamwork, and responsible digital publishing while documenting the school community.					
Yearbook 2 A/B	ENG2061A/B	.5			
Yearbook 2 is an advanced production course for students who have successfully completed Yearbook 1 and are ready to take on expanded leadership and editorial responsibilities. Students lead aspects of planning, design, writing, editing, photography, and publication while mentoring peers, managing deadlines, and helping ensure the yearbook accurately and responsibly represents the school community.					
Inspire Literacy 1	ENG2065	.5			
This course involves implementation of the reading program iLit. iLit is a reading intervention program designed to meet the needs of struggling readers through differentiated instruction, computer-adaptive instruction, building background knowledge, high-interest literature, and explicit instruction in reading, writing, and vocabulary skills. Students study strategies essential to literacy and learn when and how to use these strategies in their content classes.					
Inspire Literacy 2	ENG20656	.5			
This course involves implementation of the reading program iLit. iLit is a reading intervention program designed to meet the needs of struggling readers through differentiated instruction, computer-adaptive instruction, building background knowledge, high-interest literature, and explicit instruction in reading, writing, and vocabulary skills. Students study strategies essential to literacy and learn when and how to use these strategies in their content classes.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Inspire Literacy 3	ENG20657	.5			
This course involves implementation of the reading program iLit. iLit is a reading intervention program designed to meet the needs of struggling readers through differentiated instruction, computer-adaptive instruction, building background knowledge, high-interest literature, and explicit instruction in reading, writing, and vocabulary skills. Students study strategies essential to literacy and learn when and how to use these strategies in their content classes.					
Inspire Literacy 4	ENG20658	.5			
This course involves implementation of the reading program iLit. iLit is a reading intervention program designed to meet the needs of struggling readers through differentiated instruction, computer-adaptive instruction, building background knowledge, high-interest literature, and explicit instruction in reading, writing, and vocabulary skills. Students study strategies essential to literacy and learn when and how to use these strategies in their content classes.					
TV Production 1	ENG2095	.5			★
This course builds on foundational television concepts through a combination of classroom study and practical production experiences. Students examine issues in broadcasting, programming, and scheduling while applying advanced writing and production techniques across a range of television formats.					
TV Production 2	ENG2096	.5			★
Television 2 builds on foundational television concepts through a combination of classroom study and practical production experiences. Students examine issues in broadcasting, programming, and scheduling while applying advanced writing and production techniques across a range of television formats.					
Broadcast Journalism 1 A/B	ENG2084 A/B	.5			★
These courses examine specific topics in journalism and broadcasting other than those already described elsewhere in this classification system.					
Broadcast Journalism 2 A/B	ENG2085 A/B	.5			★
These courses examine specific topics in journalism and broadcasting other than those already described elsewhere in this classification system.					
Literature as Film	ENG2073	.5			
Many movies originally started out as novels, plays, or short stories. This course examines the original texts and choices made by writers and directors in the adaptation process. Students gain the skills necessary to critically read and analyze texts and films to evaluate the works of professionals and peers. Opportunity exists to produce original essays, storyboards, critiques, and short films.					
Literary Magazine A/B	ENG2062A/B	.5			★
Literary Magazine provides students with opportunities to develop their individual voices and refine their craft in poetry, fiction, drama, essays, and other creative forms. Through writing, reading exemplary works, and collaborative revision, students strengthen their technique and contribute original work to a literary publication.					
Hip Hop Poetics and Rhetoric	ENG2106	.5			★
This course examines Hip Hop's Golden Age as a period of literary, artistic, and cultural innovation through close study of lyrics, music videos, documentaries, cover art, memoirs, and other texts. Students analyze poetry, storytelling, language, and social commentary within the era's sociopolitical context and consider its lasting influence on contemporary Hip Hop and popular culture.					
Yearbook Executive Staff A/B	ENG2103 A/B	.5			★
This course emphasizes the interpretive and investigative nature of media. Students examine the similarities and differences of newspaper, news magazine, television, and radio; analyze the unique manner in which each explains and interprets current events; and consider the relative importance of each. Students learn research techniques essential to in-depth reporting and write investigative and interpretative stories.					
Evidence-Based Literacy 1	ENG2087	.5			★
Using a variety of materials, students receive instruction in reading strategies and study techniques for use in their content classes.					
Evidence Based Literacy 2	ENG2088	.5			★
Students learn to recognize and evaluate the unique features of a variety of reading materials to increase their comprehension and reading efficiency. Students acquire strategies for expanding their vocabulary and have opportunities to read for personal and academic enrichment. This course may be repeated once for credit.					

Electives (Cont.)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Shakespeare, Race and Gender	ENG2086	.5			★
Shakespeare, Race and Gender explores Shakespeare's most race- and gender-relevant plays and sonnets through anti-racist and feminist lenses. Inspired by the Folger Shakespeare Library's commitment to a more just and inclusive academy and society, the course critically considers Shakespeare's place in a modern world shaped by issues of race, racism, and gender					

IB Courses

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB English Literature HL 1 A/B	ENG2093A/B	.5	CM IB NCAA		ϟ
IB English Literature HL 1 focuses on in-depth literary study and analysis. Students explore texts through multiple critical approaches. The course emphasizes interpretation and performance elements.					
IB English Literature HL 2 A/B	ENG2094A/B	.5	CM IB NCAA		ϟ
IB English Literature HL 2 completes advanced literary study. Students refine analysis and critical thinking skills. The course prepares students for IB HL assessment.					
IB English Language & Literature SL 1 A/B	ENG2089A/B	.5	CM IB NCAA		ϟ
IB English Language and Literature SL 1 introduces literary study in context. Students develop reading, writing, and analysis skills. The course prepares students for IB assessments.					
IB English Language & Literature SL 2 A/B	ENG2090A/B	.5	CM IB NCAA		ϟ
IB English Language and Literature SL 2 completes the standard level course. Students deepen literary analysis and interpretation. The course emphasizes communication and assessment readiness.					
IB English Language & Literature HL 1 A/B	ENG2045A/B	.5	CM IB NCAA		ϟ
IB English Language and Literature HL 1 develops analysis of literary and nonliterary texts. Students examine how language and context shape meaning. The course emphasizes critical thinking and interpretation.					
IB English Language & Literature HL 2 A/B	ENG2046A/B	.5	CM IB NCAA		ϟ
IB English Language and Literature HL 2 deepens critical literacy skills. Students produce comparative and analytical responses. The course prepares students for IB HL assessment.					
IB English Acquisition 1 A/B	ENG2078A/B	.5	CM IB NCAA		ϟ
IB English Acquisition 1 is an advanced language acquisition course for multilingual learners to strengthen their reading, writing, listening, and speaking skills in English through the study of literature, informational texts, culture, identity, and global issues. Students consider diverse perspectives and the relationship between language, culture, and meaning.					
IB English Acquisition 2 A/B	ENG2079A/B	.5	CM IB NCAA	**IB English Acquisition 1**	ϟ
IB English Acquisition 2 builds on the skills developed in IB English Acquisition 1 and prepares multilingual learners for IB English B assessments at the Standard or Higher Level. Students strengthen their oral and written communication through the critical study of literary and non-literary texts, intercultural perspectives, and global themes; successful completion of IB English Acquisition 1 is required.					

ENGLISH LANGUAGE DEVELOPMENT (ELD) PROGRAM

The English Language Development (ELD) program provides high-quality English language development instruction aligned to grade-level content standards across English Language Arts, Mathematics, Science, and Social Studies. These courses focus on ensuring students develop the grade-level academic language needed to engage with content.

Emergent Multilingual Learners (EMLs) will be scheduled into English Language Arts classes designed to meet their level of language proficiency. Students performing at English Language Proficiency Level 1 or English Language Proficiency Level 2 should also be enrolled in English Language Development Seminar.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	CO-REQUISITES	GC★ H↗ or AL↯
English 9 for EMLs I	ESL2060A/B	.5		**English Language Development Seminar for EMLs I ESL 2069A/B**	
Grants core High School 9th Grade English credit while providing intensive language support for entering English learners (WIDA 1.0–1.7). Instruction focuses on fundamental reading comprehension, foundational writing, and critical vocabulary through grade-level texts.					
English 10 for EMLs I	ESL2061A/B	.5		**English Language Development Seminar for EMLs I ESL 2069A/B**	
Grants core High School 10th Grade English credit while providing intensive language support for entering English learners (WIDA 1.0–1.7). Instruction focuses on fundamental reading comprehension, foundational writing, and critical vocabulary through grade-level texts.					
English 9 for EMLs II	ESL2063A/B	.5		**English Language Development Seminar for EMLs II ESL 2070A/B**	
Grants core High School 9th Grade English credit for emerging English learners (WIDA 1.8–2.9). Students strengthen text analysis, evidence-based writing, and peer collaboration aligned with state college- and career-ready standards.					
English 10 for EMLs II	ESL2064A/B	.5		**English Language Development Seminar for EMLs II ESL 2070A/B**	
Grants core High School 10th Grade English credit for emerging English learners (WIDA 1.8–2.9). Students strengthen text analysis, evidence-based writing, and peer collaboration aligned with state college- and career-ready standards.					
English 9 for EMLs III	ESL2066A/B	.5		**English Language Development Seminar for EMLs III ESL 2071 A/B (as necessary)**	
Grants core High School 9th Grade English credit for expanding English learners (WIDA 3.0–3.5), advancing analytical writing, research, and complex text synthesis for postsecondary readiness.					
English 10 for EMLs III	ESL2067A/B	.5		**English Language Development Seminar for EMLs III ESL 2071 A/B (as necessary)**	
Grants core High School 10th Grade English credit for expanding English learners (WIDA 3.0–3.5), advancing analytical writing, research, and complex text synthesis for postsecondary readiness.					

**Students performing at ELP3.5–ELP4.4 students receive ELD instruction in a co-taught model or from a dually certified teacher in their English Language Arts class. EMLs who are enrolled in Grade 11 and 12 must be enrolled in grade level English courses and can receive ELD instruction in one of the following ways; ELD instruction in an ELD seminar, ELD instruction from an ELD co-teacher in an English course or ELD instruction with an ELA teacher who is dual-certified in ELD.*

HEALTH EDUCATION/PHYSICAL EDUCATION

Health Education

***One credit in Health Education is required for graduation. HPE2047A/B satisfies the one credit health education requirement.**

Health education provides students with the knowledge and skills necessary to help them make healthful decisions—both now and in the future. Through the implementation of an effective, comprehensive health education instructional program, students will develop the life skills to enhance their potential for academic success and healthier, happier, and more productive lives. Knowledge of accurate health information is essential. Practicing health-related skills in real-life situations and developing healthful behaviors are the ultimate goals of the program. Health Education aligns with the MCPS strategic direction Academic Excellence and profiles of an MCPS graduate by emphasizing lifelong positive health-related attitudes and behaviors that promote self-reliance and self-regulation for all students.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Health Education, Honors A	HPE2047A	.5			↗
Students engage in an in-depth exploration of health information in the following content areas: mental and emotional health; substance use and misuse prevention; family life and human sexuality; safety and violence prevention; healthy eating; and disease prevention and control. Students develop and apply lifelong health skills, including analyzing influences, accessing credible information, interpersonal communication, decision-making, goal-setting, self-management, and advocacy for personal, consumer, family, and community health. Through rigorous learning experiences, critical analysis, and real-world applications, students evaluate health information, examine complex health issues, and develop informed strategies to promote lifelong health and well-being.					
Health Education, Honors B	HPE2047B	.5	5 SSL	**Honors Health Education A**	↗
Honors Health Education B builds upon the knowledge and skills developed in Honors Health Education A. Students engage in an in-depth exploration of health promotion concepts and apply health literacy skills to support lifelong health-enhancing behaviors. Through rigorous learning experiences, critical analysis, and real-world applications, students examine the influences of family, peers, culture, media, technology, and other factors on health behaviors; evaluate and access valid and reliable health information; apply effective interpersonal communication, decision-making, and goal-setting skills; demonstrate self-management strategies to promote health and reduce health risks; and advocate for personal, family, and community health. Students develop the knowledge, skills, and confidence to navigate complex health issues, make informed decisions, and positively influence the health and well-being of themselves and others.					
Health Education A	HPE2048A	.5			★
Students explore health information in the following content areas: mental and emotional health; substance use and misuse prevention; family life and human sexuality; safety and violence prevention; healthy eating; and disease prevention and control. Throughout the course, students develop and apply lifelong health skills, including analyzing influences, accessing information, interpersonal communication, decision-making, goal-setting, self-management, and advocacy to promote personal, consumer, and family health. Students engage in learning experiences that support informed decisions and healthy behaviors.					
Health Education B	HPE2048B	.5	5 SSL	**Health Education A**	★
Health Education B builds on the prerequisite course Health Education A. In this course, students engage further with health promotion concepts. The goal of this course is to engage more through health literacy skill development to promote and support health-enhancing behaviors. The health literacy skills include analyzing influences of family, peers, culture, media, technology, and other factors on health behaviors; accessing valid information; using interpersonal communication skills; demonstrating ability to use decision-making and goal setting skills; practicing health-enhancing behaviors and avoid or reduce health risks; and advocating for personal, family, and community health.					
First Aid*	HPE2034	.5		**Health Education, Honors A and B**	
Students develop the knowledge and skills to recognize emergencies, make appropriate first aid decisions, prevent injuries and illness, and respond safely as the first link in the Emergency Medical Services (EMS) system while working toward American Red Cross certification. This course does not fulfill the Health Education graduation requirement.					

Physical Education

One credit in Physical Education is required for graduation: Courses that satisfy these requirements are described below.

High School Physical Education promotes life-long wellness and prepares students for a physically active lifestyle. The students will extend skills and knowledge developed in middle school, but with a more concentrated focus on planning and implementing lifetime physical activity goals. The instruction is centered on mastery of self-improvement, provides students with choices and deemphasizes competition and peer comparisons. Integration of technology into the grade-level outcomes enhances the experience of students. As students move toward career readiness the physical education program prepares them by ensuring they can set personal physical fitness and physical activity goals. Physical Education aligns with the MCPS strategic direction Academic Excellence and profiles of an MCPS graduate.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Found Fitness Sport PE	HPE2004	.5			
This course builds on middle school physical education by developing students' understanding of fitness components, training principles, movement skills, and factors that influence physical activity through a variety of sports, games, and fitness experiences. Students apply fitness knowledge, goal-setting, and personal fitness planning to support lifelong physical activity and prepare for Specific Physical Education courses after completion of foundations.					

Leadership Opportunities in PE	HPE 2003	.5			
This course develops student leadership skills by preparing students to serve as peer leaders who assist, encourage, and support students with diverse physical, learning, and developmental needs during inclusive physical education, recreation, fitness, and movement experiences. Enrollment requires physical education teacher and counselor approval, and students are encouraged to complete Foundations of Personal Fitness and Sport (HPE 2004A) prior to enrolling in this course.					

Concentrated Physical Education (CPE)

These semester-long courses include instruction in two-three week units focused on personal improvement in a game category. The outcomes of these courses promote refinement of life skills such as self-management, problem-solving, and communication. Each course offers opportunities for student growth in health-enhancing fitness activities, movement skills and concepts, and personal and social responsibility as they relate to the CPE course that is selected. As an extension of Foundations of Personal Fitness and Sport, students will apply the knowledge of components and principles of health and skill-related fitness when creating a personal fitness plan directly related to the CPE activity selected. CPE courses are all one semester, .5 credit courses, as listed in the course table below. Check with your school for which classes are available.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Lifetime Sport	HPE2010	.5			
This course develops skills and fitness through student-informed lifetime physical activities that promote personal wellness, enjoyment, and continued participation in physical activity beyond high school. Students apply health- and skill-related fitness concepts and personal fitness planning to support lifelong physical activity and well-being.					

Net Sports	HPE2011	.5			
This course develops movement skills, tactical decision-making, game strategies, fitness, and personal fitness planning through net and wall activities such as badminton, tennis, pickleball, volleyball, and table tennis, with opportunities for student input in activity selection.					

Specialty Physical Education (SPE)

These semester-long courses offer in-depth instruction and planning for lifetime activity and fitness by applying and refining skills and concepts learned at the middle school level. Students will enjoy new lessons and application of skills in small-sided games and practice planning. Students will be able to apply the knowledge acquired in early years and be able to develop personal fitness plans through analysis of health-and skill-related fitness skills and concepts. Students will have opportunities to apply movement skills to advanced tactics and concepts of the chosen activity. Students will be given leadership roles as an opportunity for growth in personal and social responsibility. As an extension of Foundations of Personal Fitness and Sport, students will apply their knowledge of components and principles of health and skill-related fitness when creating a personal fitness plan. Students will deepen their understanding of personal fitness plans and goal setting as they apply directly to the SPE activity selected.

SPE courses are all one semester, .5 credit courses, as listed in the course table below. Check with your school for which classes are available.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Athletic Guidance Training	HPE2053	.5			
This course is designed for students in grades 11 and 12 who are interested in continuing athletic participation beyond high school. Students learn about academic eligibility, the NCAA Eligibility Center, recruiting processes, athletic preparation, and planning for future sport success. Through fitness testing, goal setting, and personal training decisions, students develop strategies to prepare for future athletic opportunities.					

Basketball	HPE2016	.5			
This course provides in-depth instruction in basketball with an emphasis on advanced movement skills, tactical game decision-making, and game concepts. Students demonstrate personal and social responsibility through leadership roles, teamwork, communication, decision-making, and purposeful practice in small-sided and full-game learning experiences.					

Dance	HPE2017	.5			
This course provides in-depth instruction in dance with an emphasis on movement skills, rhythmic concepts, creativity, physical performance, and personal expression. Students work individually, with partners, and in groups to learn and apply various dance forms while demonstrating personal and social responsibility.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Fitness	HPE2019	.5			
This course provides in-depth instruction in fitness activities that support lifelong health, wellness, and personal improvement. Students focus on muscular strength and endurance, cardiovascular fitness, flexibility, goal setting, fitness data, and the development of a personal fitness plan, with less emphasis on sport or game play.					
Flag Football	HPE2020	.5			
This course provides in-depth instruction in flag football with an emphasis on advanced movement skills, tactical game decision-making, and game concepts. Students participate in small-sided and full-game learning experiences that promote strategy application, teamwork, communication, leadership, and personal and social responsibility.					
Lacrosse	HPE2021	.5			
This course provides in-depth instruction in lacrosse with an emphasis on advanced movement skills, tactical game decision-making, and game concepts. Students participate in small-sided and full-game learning experiences that promote strategy application, teamwork, communication, leadership, and personal and social responsibility.					
Soccer	HPE2022	.5			
This course provides in-depth instruction in soccer with an emphasis on advanced movement skills, tactical game decision-making, and game concepts. Students participate in small-sided and full-game learning experiences that promote strategy application, teamwork, communication, leadership, and personal and social responsibility.					
Volleyball	HPE2025	.5			
This course provides in-depth instruction in volleyball with an emphasis on advanced movement skills, tactical game decision-making, and game concepts. Students demonstrate personal and social responsibility through leadership roles, teamwork, communication, decision-making, and purposeful practice in individual, partner, small-group, and game-based learning experiences.					
Weight/Strength Train	HPE2026	.5			
This course provides in-depth instruction in weight and strength training with an emphasis on safe technique, weight room procedures, and responsible participation. Students learn and apply concepts related to muscular strength and endurance, cardiovascular fitness, flexibility, periodization, overload, specificity, training progression, personal bests, goal setting, and personal fitness planning.					
Yoga Stretching	HPE2028	.5			
This course provides in-depth instruction in yoga and stretching activities that support flexibility, strength, endurance, body awareness, stress management, and lifelong wellness. Students learn safe participation procedures, personal goal setting, fitness concepts, and strategies for using movement to support physical and mental well-being.					
Mindfulness for Teens	HPE2045	.5			
Mindfulness for Teens provides students with research-based information about factors that influence physical, emotional, and mental wellness while introducing mindfulness as a strategy to support overall well-being. The course extends learning related to self-awareness, emotional regulation, informed decision-making, neuroscience, stress management, relationship-building, and gratitude practices through individual and collaborative inquiry, discussion, and project-based learning. Through a variety of mindfulness practices, students develop positive ways of relating to themselves and others while gaining tools to support success in school and life; this course does not fulfill the graduation requirement for health education or physical education.					

MATHEMATICS

In the 21st century, a deep understanding of mathematics, and the ability to apply that understanding, is more important than it has ever been. In Montgomery County Public Schools (MCPS), students develop a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving to more advanced content. MCPS believes that the course options available to students will prepare them for success in college and careers. Through opportunities to accelerate course offerings in grades 6-12, students are able to reach Advanced Placement courses, such as AP Precalculus, AP Calculus, or AP Statistics, by twelfth grade, regardless of the grade level for which they successfully completed Algebra 1. New minimum qualifications for admission to University System of Maryland colleges and universities include completion of Algebra 2 or a significant mathematics course with advanced content during senior year. The College and Career Readiness Act of 2013 established the statutory language found in Maryland Education Code Annotated 7-205.1. This statute established that "Beginning with students entering the 9th grade class of school year 2014–2015, each student shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement."

Four credits in mathematics, including 1 credit in algebra and 1 credit in geometry, are required for graduation. MSDE further specifies that students must earn credits in mathematics courses, including one with instruction in algebra aligned with the MCAP for algebra or one or more credits in subsequent mathematics courses for which Algebra I is a prerequisite; and one with instruction in geometry, aligned with the content standards for geometry.

Students must enroll in a mathematics-based course for each year they attend high school, up to a maximum of four years of attendance, unless in the fifth or sixth year a mathematics course is needed to meet a graduation requirement. This is required by MSDE, as well as by many colleges and universities to which MCPS students may want to apply. Students are advised to consult with their academic advisors/counselors to ensure they meet all mathematics graduation requirements, and to examine carefully any additional admission requirements that may be in effect at a prospective postsecondary school of interest.

GRADE-LEVEL COURSE PATHWAYS AND PREREQUISITES

GRADE 9	GRADE 10	GRADE 11	GRADE 12
❑ Integrated Algebra 1	❑ Honors Geometry	❑ Honors Algebra 2	❑ 2 Year Algebra 2 CD
OR	OR	OR	OR
❑ Honors Geometry	❑ Geometry	❑ Algebra 2	❑ Dual Enrollment
OR	OR	OR	OR
❑ Geometry	❑ Honors Algebra 2	❑ 2 Year Algebra 2 CD	❑ AP Statistics
OR	OR	OR	OR
❑ Honors Algebra 2	❑ 2 Year Algebra 2 CD	❑ Precalculus BC	❑ Honors Statistics
OR	OR	OR	OR
❑ Algebra 2	❑ Precalculus BC	❑ AP Precalculus	❑ Statistics
OR	OR	OR	OR
❑ Precalculus BC	❑ AP Precalculus	❑ Precalculus	❑ Precalculus BC
OR	OR	OR	OR
❑ AP Precalculus	❑ Precalculus	❑ AP Statistics	❑ AP Precalculus
	OR	OR	OR
	❑ AP Calculus AB	❑ Honors Statistics	❑ Precalculus
	OR	OR	OR
	❑ AP Calculus BC	❑ Statistics	❑ Multivariable Calculus
	OR	OR	OR
	❑ Calculus	❑ Multivariable Calculus	❑ AP Calculus AB
		OR	OR
		❑ AP Calculus AB	❑ AP Calculus BC
		OR	OR
		❑ AP Calculus BC	❑ Calculus
		OR	OR
		❑ Calculus	❑ IB Math Applications Year 2
		OR	OR
		❑ IB Math Applications	❑ IB Math Analysis Year2
		OR	OR
		❑ IB Math Analysis	❑ Financial Math

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Integrated Algebra 1 A/B	MAT2087A/B	.5			★
In Integrated Algebra 1, students connect algebra, statistics, and geometry as they explore mathematical relationships and patterns of change. Students investigate relationships in data, analyze linear and exponential relationships using equations, graphs, and functions, and engage in mathematical modeling to make sense of situations and inform decisions. Students connect transformations of graphs and geometric figures to explore change, invariance, and congruence and use equations, inequalities, and systems to solve problems within constraints.					
Integrated Algebra 1 Lab A/B	MAT2102A/B	.5			★
Integrated Algebra 1 Lab is a Tier 2 intervention course to support the learning of Integrated Algebra 1 This course is a co-requisite to Integrated Algebra 1. This is a math elective course that will not count as one of the four required math credits for graduation.					
Evidence-Based Mathematics	MAT2101	.5			★
This course is designed for Tier 3 instruction that uses an evidence based approach. This is a math elective course that will not count as one of the four required math credits for graduation.					
Geometry, Honors A/B	MAT2004A/B	.5	CM NCAA	**Algebra 1**	↗
Honors Geometry provides an advanced study of congruence, similarity, transformations, proof, coordinate geometry, measurement, and relationships within triangles, circles, and other two- and three-dimensional figures. Students engage with greater depth and complexity through rigorous mathematical arguments, multi-step problem solving, algebraic connections, constructions, and geometric modeling.					
Geometry A/B	MAT2003A/B	.5	NCAA	**Algebra 1**	★
Geometry develops students' understanding of congruence, similarity, geometric transformations, proof, coordinate geometry, measurement, and relationships within triangles, circles, and other two- and three-dimensional figures. Students use mathematical reasoning, constructions, algebraic connections, and modeling to analyze geometric relationships and solve problems.					
2 YR Algebra 2 C/D	MAT2016 C/D	.5	CM NCAA	**2 YR Algebra 2 A/B or Algebra 2 A**	★
Two-Year Algebra 2 Year 2 completes the Algebra 2 curriculum with additional time for concept development, procedural fluency, and student support while maintaining the rigor of the one-year course. Students deepen and extend their study of functions, equations, modeling, and multiple representations while completing Algebra 2 connections to trigonometry, probability, and statistics.					
Algebra 2, Honors A/B	MAT2012A/B	.5	CM NCAA	**Algebra 1 A/B and Geometry A/B or Honors Geometry A/B**	↗
Honors Algebra 2 provides an advanced study of linear, quadratic, polynomial, rational, radical, exponential, and logarithmic functions, including transformations, inverses, and connections among multiple representations. Students work with greater depth and complexity to develop rigorous algebraic reasoning, construct and analyze mathematical models, and extend their understanding of trigonometry, probability, and statistics.					
Algebra 2 A/B	MAT2011A/B	.5	CM NCAA	**Algebra 1 A/B and/or Geometry A/B**	★
Algebra 2 extends students' understanding of functions and algebraic reasoning through the study of linear, quadratic, polynomial, rational, radical, exponential, and logarithmic relationships, along with transformations and inverse functions. Students use equations, graphs, tables, technology, and mathematical models to solve problems and make connections to trigonometry, probability, and statistics.					
AP Statistics, A/B	MAT2068A/B	.5	CM NCAA AP	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
AP Statistics focuses on collecting and analyzing data. Students study probability, inference, and experimental design. The course emphasizes problem solving and real-world applications.					
Statistics, Honors A/B	MAT2046A/B	.5	CM NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	↗
Honors Statistics provides an advanced study of data analysis, probability, sampling, distributions, simulation, and statistical inference, including confidence intervals and hypothesis testing. Students work with greater depth and complexity to design investigations, analyze real-world data, evaluate statistical claims, and justify conclusions using statistical reasoning, mathematical models, and technology.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Statistics A/B	MAT2100	.5	CM NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	★
Statistics develops students' understanding of data analysis, probability, sampling, distributions, simulation, and statistical inference, including confidence intervals and hypothesis testing. Students use statistical reasoning, mathematical models, and technology to explore real-world data, identify patterns, evaluate claims, and make evidence-based conclusions.					
Financial Mathematics A/B	MAT2034A/B	.5	5 SSL	**Algebra 2 A/B or Honors Algebra 2 A/B**	★
Financial Mathematics develops mathematical decision-making and financial literacy through applications involving budgeting, saving, investing, credit, loans, taxes, risk, and other personal or business financial situations. Students use quantitative reasoning, mathematical models, and technology to analyze options, evaluate financial consequences, and make informed decisions.					
AP Precalculus,A/B	MAT2033A/B	.5	CM NCAA AP	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
AP Precalculus prepares students for college-level calculus and other advanced mathematics and science courses through the study of polynomial, rational, exponential, logarithmic, trigonometric, and polar functions, as well as functions involving parameters, vectors, and matrices. Students use technology, modeling, and problem solving to develop conceptual understanding and mathematical reasoning while applying mathematics to real-world contexts.					
Precalculus BC	MAT2091	.5	CM NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
Precalculus BC provides an advanced study of functions and prepares students for calculus through polynomial, rational, exponential, logarithmic, trigonometric, circular, parametric, and inverse relationships, as well as vectors and sequences and series. Students work with greater depth, complexity, and independence to analyze functions, construct mathematical models, make connections across representations, and solve challenging problems using algebraic reasoning and technology.					
Precalculus A/B	MAT2031A/B	.5	CM NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	★
Precalculus extends students' study of functions and prepares them for calculus through polynomial, rational, exponential, logarithmic, trigonometric, and inverse functions, along with analytic geometry and other advanced algebraic topics. Students analyze and model relationships using equations, graphs, technology, and multiple representations while developing understanding of topics such as vectors, sequences and series, and limits.					
AP Calculus AB, A/B	MAT2040A/B	.5	CM NCAA AP	**Precalculus A/B or Honors Precalculus A/B**	ϟ
AP Calculus AB covers introductory college calculus concepts in limits, derivatives, and integrals. The course focuses on understanding change and analyzing functions.					
AP Calculus BC, A/B	MAT2041A/B	.5	CM NCAA AP	**Honors Precalculus A/B**	ϟ
AP Calculus AB covers introductory college calculus concepts in limits, derivatives, and integrals. The course focuses on understanding change and analyzing functions.					
Calculus	MAT2049A/B	.5	CM NCAA	**Precalculus A/B or Honors Precalculus A/B**	★
Calculus develops students' understanding of limits, continuity, derivatives, definite integrals, and the relationship between differentiation and integration. Students use numerical, graphical, symbolic, and technological methods to analyze functions and model real-world situations involving rates of change, accumulation, and other applications of calculus.					
Multivariable Calculus and Differential Equations A/B	MAT2038A/B	.5	CM NCAA	**AP Calculus BC, AP Calculus BC or Calculus with Analysis**	ϟ
Multivariable Calculus and Differential Equations explores three-dimensional analytic geometry, vectors, and the calculus of functions of more than one variable, including partial derivatives, vector-valued functions, multiple integrals, volumes, surface area, and the classical theorems of Green, Stokes, and Gauss. The course concludes with an introduction to the fundamental concepts and applications of ordinary differential equations.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Math Analysis Statistics/Calculus SL 1 A/B	MAT2061A/B	.5	CM IB NCAA	**Algebra 2 A/B and Geometry A/B or Honors Geometry A/B**	ϟ
IB Analysis Statistics Calculus SL 1 develops students' understanding of the core principles of mathematical reasoning and introduces key concepts in algebra, functions, and calculus. Students engage in problem-solving and mathematical inquiry as they analyze and communicate mathematical ideas in both familiar and unfamiliar contexts. The course emphasized conceptual understanding, abstraction, and the development of strong analytical and algebraic skills.					
IB Math Analysis Statistics/Calculus SL 2 A/B	MAT2082A/B	.5	CM IB NCAA	**IB Application Statistics/ Calculus SL 1 A/B**	ϟ
IB Applications Statistics Calculus SL 2 builds on foundational concepts as students deepen their understanding of mathematical modeling, data analysis, and real-world applications. Students apply mathematical techniques to analyze complex situations, interpret results, and communicate reasoning using appropriate technology. The course emphasized independent problem-solving, critical thinking, and preparation for IB assessment through applied mathematical investigation.					
IB Math Analysis Statistics/Calculus SL 2 A/B	MAT2062A/B	.5	CM IB NCAA	**IB Analysis Statistics Calculus SL 1 A/B**	ϟ
IB Analysis Statistics Calculus SL 2 builds on foundational concepts as students deepen their understanding of functions, statistics, and calculus through mathematical inquiry and application. Students apply mathematical techniques to solve complex problems, interpret results, and communicate their reasoning with clarity. The course emphasized independent problem-solving, critical thinking, and the effective use of technology in preparation for IB assessment.					
IB Math Analysis Statistics/Calculus HL 1 A/B	MAT2063A/B	.5	CM IB NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
IB Analysis Statistics Calculus HL 1 develops students' understanding of mathematical reasoning and advanced concepts in functions, algebra, and calculus. Students investigate, construct, and communicate mathematical arguments while building the conceptual, analytical, and procedural skills needed for higher-level study.					
IB Math Analysis Statistics/Calculus HL 2 A/B	MAT2064A/B	.5	CM IB NCAA	**IB Analysis Statistics Calculus HL 1 A/B**	ϟ
IB Analysis Statistics Calculus HL 2 deepens students' understanding of calculus, functions, and mathematical analysis through rigorous problem-solving and application. Students model, justify, and communicate complex mathematical ideas while developing independent inquiry and critical-thinking skills and using technology appropriately in preparation for IB assessments.					
IB Math Applications Statistics/Calculus 1 A/B	MAT2080A/B	.5	CM IB NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
IB Applications Statistics Calculus 1 develops students' understanding of mathematical modeling and statistical thinking through real-world applications of data analysis, functions, and probability. Students use technology to analyze complex situations, interpret results, and communicate mathematical reasoning while developing problem-solving and critical-thinking skills across practical and interdisciplinary contexts.					
IB Math Applications Statistics/Calculus SL 1 A/B	MAT2081A/B	.5	CM IB NCAA	**Algebra 2 A/B or Honors Algebra 2 A/B**	ϟ
IB Applications Statistics Calculus SL 1 develops students' understanding of mathematical modeling and statistical thinking through real-world applications of data analysis, functions, and probability. Students use technology to solve problems, conduct mathematical inquiry, interpret and communicate results, and apply mathematics in practical situations.					
IB Math Applications Statistics/Calculus SL 2 A/B	MAT2082A/B	.5	CM IB NCAA	**IB Applic Statistics Calculus SL 1 A/B**	ϟ
IB Applications Statistics Calculus SL 2 deepens students' understanding of mathematical modeling, data analysis, and real-world applications through applied mathematical investigations. Students use technology to analyze complex situations, interpret and communicate results, and develop independent problem-solving and critical-thinking skills in preparation for IB assessments.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Center Precalculus A/B	MAT2088A/B	.5	CM NCAA		ϟ
Center Program Precalculus A introduces the properties of real numbers, functions, and equations in one variable through the study of algebraic, exponential, logarithmic, and circular functions, with a focus on definitions, graphs, and applications. Students analyze function behavior and explore connections to slope and rate of change to develop a deeper understanding of mathematical relationships.					
Center Precalculus C/D	MAT2088C/D	.5	CM NCAA	**Center Precalculus A/B**	ϟ
Center Program Precalculus C introduces the definition, properties, and applications of matrices while extending students' understanding of algebraic, exponential, logarithmic, and circular functions through graphing and real-world applications. The course emphasizes connections between matrix operations and function analysis to strengthen mathematical reasoning and problem-solving skills.					
Center Functions A/B	MAT2089A/B	.5	CM NCAA		ϟ
Center Program Functions A extends concepts from Algebra 1 through the study of algebraic, exponential, logarithmic, and circular functions, with an emphasis on analyzing function behavior through graphs, applications, and key features. The course introduces trigonometry, limits, and derivatives to develop a strong foundation for advanced mathematics.					
Calculus with Analysis A/B	MAT2090A/B	.5	CM NCAA	**Center Precalculus C/D or Center Functions A/B**	ϟ
Center Program with Analysis A/B applies the delta-epsilon definition of limits to develop concepts of differentiation and integration. Students study topics aligned to the AP Calculus BC curriculum, including infinite series, differential equations, and polar analysis, emphasizing the application of calculus concepts to problems in science and economics.					
Applied Statistics	MAT2039	.5	CM NCAA	**Calculus with Analysis A/B or AP BC Calculus A/B**	ϟ
Applied Stat develops students' ability to design, collect, and analyze data for research and surveys. Students study probability, counting techniques, and statistical distributions aligned to the AP Statistics curriculum. The course emphasizes interpreting data and conducting significance tests for real-world applications.					
Discrete Mathematics	MAT2053	.5	CM NCAA	**Completion of Honors/AP or Center Precalculus sequence AND Anaysis of Algorithms or AP Computer Science**	ϟ
Discrete Math introduces mathematical concepts used in computer science, including set theory, graph theory, and number theory. Students study counting techniques, combinations, and structures used in data analysis. The course emphasizes logical reasoning and mathematical tools for analyzing discrete systems.					
Linear Algebra	MAT2054	.5	CM NCAA	**Calculus with Analysis or AP BC Calculus A/B**	ϟ
Students learn the theory and practice of matrices and determinants and their use in solving linear equations. They study the structure and properties of linear transformations, vector spaces, and linear programming as they apply to such fields as biology, chemistry, differential equations, economics, psychology, and weather forecasting.					
Complex Analysis	MAT2055	.5	CM NCAA	**Multivariable Calculus & Differential Equations**	ϟ
Complex Analysis introduces functions of complex variables and their applications in advanced mathematics and science. Students study complex numbers, differentiation, and integration of complex functions. The course also explores series, residues, and conformal mappings.					
Vector Calculus A/B	MAT2050A/B	.5	CM NCAA	**Calculus with Analysis or AP Calculus BC**	ϟ
All topics from Multivariable Calculus are covered with more emphasis on proof. Theorems are generalized from 3-dimensions to n-dimensions.					

SCIENCE

3 Next Generation Science Standards (NGSS) credits, including life science aligned to the Life Science Maryland Integrated Science Assessment (LS MISA) (LS-NGSS), physical science (PS-NGSS) and one credit in Earth/space science or an NGSS course with the topics of Earth/space science integrated (ES-NGSS). Courses that satisfy those requirements are listed below.

The goal of the science program is for all students to achieve full scientific literacy through standards-aligned, problem-based instruction. Students apply content knowledge through scientific and engineering practices to solve relevant, non-routine problems. For high school graduation, each student must earn a minimum of 3 credits in science courses, one credit from each category below, that are aligned to the Maryland Science Standards (Next Generation Science Standards), and approved for graduation credit. In selecting courses to meet the 3-credit requirement, students should seek a broad array of learning experiences in each of the major disciplines of science.

Next Generation Science Standards (NGSS) Categories

LS-NGSS[1, 2]	• Life Science
PS-NGSS[2]	• Physical Science
ES-NGSS[2]	• Earth/Space Science or Integrated

[1]Beginning with the 2023–2024 school year, the Maryland Comprehensive Assessment for science and government will count as 20 percent of first time 9th graders final grade in the respective high school level science and government courses (Biology and NSL Government).
[2]Students in high school science magnet programs may complete these graduation requirements in NGSS-aligned, graduation credit approved magnet courses. Consult your school magnet coordinator for approved courses and details.
[3]A single course may only be applied to fulfill a single disciplinary category as described in COMAR. Chemistry, Physics and Astronomy with Physics integrate physical science and Earth/space science disciplinary core ideas; completion of the course may fulfill either the physical science **OR** Earth/space science credit, **not both**.

ALTERNATIVE TO DISSECTION

Dissection is one of many instructional methods that may be used in laboratory science courses. Students/parents/guardians may request alternatives to dissection from the teacher. Alternatives may include such materials as videos, computer programs, models, charts, diagrams, and textbook overlays.

GRADE-LEVEL COURSE PATHWAYS

GRADE 9

- ❑ Honors Biology (LS-NGSS)
  OR
- ❑ Biology (LS-NGSS)
  OR
- ❑ Earth Systems and Sustainability (ES-NGSS)

GRADE 10

- ❑ Honors Biology (LS-NGSS)
  OR
- ❑ Biology (LS-NGSS)
  OR
- ❑ Honors Chemistry (PS-NGSS or ES-NGSS)
  OR
- ❑ Chemistry (PS-NGSS or ES-NGSS)
  OR
- ❑ Honors Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Astronomy w/Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Earth Systems and Sustainability (ES-NGSS)

GRADE 11

- ❑ AP or IB Biology (LS-NGSS)
  OR
- ❑ Honors Biology (LS-NGSS)
  OR
- ❑ Biology (LS-NGSS)
  OR
- ❑ AP or IB Chemistry
- ❑ (PS-NGSS or ES-NGSS)
  OR
- ❑ Honors Chemistry (PS-NGSS or ES-NGSS)
  OR
- ❑ Chemistry (PS-NGSS or ES-NGSS)
  OR
- ❑ AP or IB Environmental Science (ES-NGSS)
  OR
- ❑ Honors Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Astronomy w/Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ AP or IB Physics (PS-NGSS or ES-NGSS)
  OR
- ❑ Earth Systems and Sustainability (ES-NGSS)
  OR
- ❑ IB Sports, Exercise Health Science (PS-NGSS)

GRADE 12

- ❑ AP Biology, Chemistry or Physics
  OR
- ❑ IB Biology, Chemistry, or Physics Year 2
  OR
- ❑ IB Sports, Exercise Health Science (PS-NGSS)
  OR
- ❑ Non NGSS Science Electives
  OR
- ❑ Dual Enrollment
  OR
- ❑ Internship
  OR
- ❑ Apprenticeship

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors Biology A/BX	SCI2001A/BX	.5	CM, NCAA	**N/A**	↗
LS-NGSS: This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas using observations, experiments, models and technology in developing solutions to authentic problem-based scenarios while also exploring career opportunities. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					
Biology A/BX	SCI2000A/BX	.5	NCAA	**N/A**	★
LS-NGSS: This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas using observations, experiments, models and technology in developing solutions to authentic problem-based scenarios while also exploring career opportunities.					
Earth Systems and Sustainability A/B	SCI2110A/B	.5	NCAA	**N/A**	★
ES-NGSS: In this NGSS-aligned course, students will investigate Earth systems (geosphere, atmosphere, biosphere, and hydrosphere) and Earth in space. Earth Systems and Sustainability provides NGSS science credit for high school graduation. This course is suitable for any student needing an Earth/space science credit.					
Honors Chemistry A/B	SCI2004A/B	.5	CM, NCAA	**Algebra 1** **Corequisite: Geometry A/B or Honors**	↗
PS-NGSS or ES-NGSS: This NGSS-aligned course emphasizes the study of matter through inquiry. Using data, evidence, and scientific modelling, students achieve a deeper understanding of changes in matter. Topics of study will include structures and properties of matter, atmospheric chemistry, chemical reactions, conservation of mass/energy, and relationships between Earth and human activity. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					
Chemistry A/B	SCI2003A/B	.5	NCAA	**Algebra 1** **Corequisite: Geometry A/B or Honors**	★
PS-NGSS or ES-NGSS: This NGSS-aligned course emphasizes the study of matter through inquiry. Using data, evidence, and scientific modelling, students achieve a deeper understanding of changes in matter. Topics of study will include structures and properties of matter, atmospheric chemistry, chemical reactions, conservation of mass/energy, and relationships between Earth and human activity.					
Physics A/B	SCI2005A/B	.5	NCAA	**Corequisite: Geometry A/B**	★
PS-NGSS or ES-NGSS: This NGSS-aligned course investigates physical laws and theories, relationships of physical phenomena, and the interrelationships of physics to other fields of human endeavor. Topics include traditional physics subjects (Newtonian mechanics: dynamics, momentum, energy; electricity and magnetism; waves) along with related subjects in earth science (plate tectonics; earthquake activity) and astronomy (solar evolution).					
Astronomy with Physics A/B	SCI5085A/B	.5	NCAA	**Corequisite: Geometry A/B**	★
PS-NGSS or ES-NGSS: In this NGSS-aligned course, students explore the planets, interstellar objects, energy, and forces of the solar system. Students learn about the solar system through experiences in the laboratory and sites beyond the classroom, such as NASA and the Air and Space Museum.					
AP Biology A/B	SCI2040A/B	.5	CM, NCAA, AP	**Biology A/B** **Corequisite: Chemistry A/B**	ϟ
LS-NGSS: AP Biology is an introductory college-level course. Students cultivate their understanding of biology through inquiry-based investigations as they eplore the following topics: evolution, cellular processes, energy and communication, genetic information transfer, ecology and interactions.					
AP Biology A/B DP	SCI2041 A/B	1	CM AP NCAA	**Biology A/B** **Corequisite: Chemistry A/B**	ϟ
LS-NGSS: AP Biology DP is NGSS-aligned and an introductory college-level course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetic information transfer, ecology and interactions. The double period Biology allows for extended laboratory and inquiry work.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Biology SL 1 A/B	SCI2081A/B	.5	CM, IB, NCAA, DP		ϟ
LS-NGSS: IB Biology SL 1A/B AP Biology DP is NGSS aligned and introduces students to the study of life across multiple levels of organization, from molecules and cells to organism and ecosystems. Students develop an understanding of key biological concepts while engaging in scientific inquiry, data analysis, and laboratory investigations. The course emphasizes critical thinking, collaboration, and the development of experimental and research skills.					
IB Biology SL 2 A/B	SCI2114A/B	.5	CM IB NCAA	**IB Biology SL 2**	ϟ
LS-NGSS: IB Biology SL 2 is NGSS-aligned and builds on foundational concepts as students deepen their understanding of biological systems and their interactions within complex environments. Students apply scientific knowledge through inquiry, analysis, and independent investigation while strengthening their ability to evaluate and communicate scientific information. The course emphasizes application of knowledge, experimental design, and preparation for IB assessment.					
IB Biology HL 1 A/B	SCI2082A/B	.5	CM, IB, NCAA	**MCPS/Honors or Center Biology, Physics and/or Chemistry**	ϟ
LS-NGSS: IB Biology HL 1 is NGSS aligned and develops students' understanding of biological concepts in greater depth, focusing on the structure and function of living systems across multiple levels. Students engage in detailed scientific inquiry and laboratory work to analyze data, construct explanations, and explore biological processes. The course emphasizes conceptual understanding, critical thinking, and the development of advanced experimental and research skills.					
IB Biology HL 2 A/B	SCI2083A/B	.5	CM IB NCAA	**IB Biology HL 1**	ϟ
LS-NGSS: IB Biology HS 2 is NGSS-aligned and builds on advanced concepts as students apply their knowledge to complex biological systems and global scientific issues. Students conduct independent investigations and analyze data to evaluate scientific claims and communicate findings with precision. The course emphasized independent inquiry, synthesis of ideas, and preparation of IB assessment in biology.					
AP Chemistry A/B	SCI2057A/B	.5	CM, NCAA, AP	**Chemistry A/B Corequisite: Algebra 2 A/B**	ϟ
PS-NGSS or ES-NGSS: AP chemistry is NGSS aligned and provides students with a college-level foundation to support future advance coursework in chemistry. Students study atomic structure and properties, reactions, and energy changes. The course emphasizes inquiry and conceptual understanding.					
AP Chemistry A/B DP	SCI2059A/B	1	CM, NCAA, AP, DP	**Chemistry A/B and Algebra 2 A/B**	ϟ
PS-NGSS or ES-NGSS: AP Chemistry DP is NGSS-aligned and provides students with a college-level foundation to support future advanced coursework in chemistry. Students study atomic structure and properties, reactions, and energy changes. The course emphasizes inquiry and conceptual understanding. The double period allows for extended laboratory and inquiry work.					
IB Chemistry SL 1 A/B	SCI2087A/B	.5	CM, IB, NCAA	**MCPS/Honors or Center Biology, Physics and/or Chemistry**	ϟ
PS-NGSS or ES-NGSS:IB Chemistry SL 1 is NGSS aligned and introduces students to the study of matter and its interactions, focusing on key concepts such as atomic structure, bonding, and chemical reactions. Students develop practical and analytical skills through laboratory investigation and scientific inquiry. The course emphasizes critical thinking, problem-solving, and the application of chemical principals.					
IB Chemistry SL 2 A/B	SCI2089A/B	.5	CM IB NCAA	**IB Chemistry SL 1**	ϟ
PS-NGSS or ES-NGSS: IB Chemistry SL 2 is NGSS-aligned and builds on foundational concepts as students deepen their understanding of chemical processes and their applications in real-world contexts. Students apply scientific knowledge through experimentation, data analysis, and evaluation of chemical models. The course emphasizes application of knowledge, inquiry, and preparation for IB assessment.					
IB Chemistry HL 1 A/B	SCI2115A/B	.5	CM, IB, NCAA	**MCPS/Honors or Center Biology, Physics and/or Chemistry**	ϟ
PS-NGSS or ES-NGSS:IB Chemistry HL 1 is NGSS aligned and develops students' understanding of chemical principles in greater depth, emphasizing theoretical knowledge and practical investigation. Students explore complex chemical systems and develop skills in quantitative analysis, modeling, and experimental design. The course emphasizes conceptual understanding and the development of advanced scientific skills.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Chemistry HL 2 A/B	SCI2116A/B	.5	CM IB NCAA	**IB Chemistry HL 1**	ϟ
PG-NGSS or ES-NGSS: IB Chemistry HL 2 is NGSS aligned and builds on advanced concepts as students apply their understanding of chemistry to complex problems and contemporary scientific issues. Students conduct independent investigations, analyze data, and evaluate scientific explanations using evidence. The course emphasizes independent inquiry, critical thinking, and preparation for IB assessment in chemistry.					
AP Environmental Science A/B	SCI2046A/B	.5	CM, NCAA, AP	**Biology A/B** **Corequisite: Chemistry A/B recommended**	ϟ
ES-NGSS: AP Environmental Sciences is an introductory is an introductory, NGSS aligned, college equivalent course designed to explore interrelationships in the natural world through inquiry-based labs, scientific priciniples, and data analysis.					
IB Environmental Systems A/B	SCI2090A/B	.5	CM, IB, NCAA	**Biology A/B**	ϟ
ES-NGSS: IB Environmental Systems is NGSS aligned and is an interdisciplinary course that explores the relationships between environmental systems and human societies. Students investigate sustainability, resource use, and global environmental issues while developing skills in research and data analysis. The course emphasizes systems thinking, real-world application, and informed decision-making.					
Advanced Science 1 Physics DP	SMCS2010	1	CM, NCAA, DP	**Algebra 1**	ϟ
PS-NGSS: Adv Sci1 Physics DP builds on the MCPS Honors Physics A and B curriculum with an emphasis on nonlinear systems solved through numerical methods and the integration of computer science, mathematics, vectors, spreadsheets, and simulations. Students explore core physics concepts while applying computational tools to analyze complex systems. This course is NGSS aligned.					
IB Sports, Exercise, Health Science A/B	SCI2085A/B	.5	CM IB NCAA	**MCPS/Honors and/or Center Biology and Chemistry**	ϟ
PS-NGSS or ES-NGSS: IB Sports Exercise Health Science is NGSS-aligned and explores the science of human performance by studying physiology, biomechanics, and psychology. Students investigate how the body responds to exercise and health-related choices while developing skills in scientific inquiry, data analysis, and experimentation. The course emphasized real-world application, critical thinking, and the use of science to improve performance and overall health.					
IB Physics SL 1 A/B	SCI2097A/B	.5	CM IB NCAA	**Geometry** **Corequisite: Algebra 2**	ϟ
PS-NGSS or ES-NGSS: IB Physics SL 1 is NGSS-aligned and introduces students to the fundamental principles that explain the natural world, including motion, energy, waves, and matter. Students develop problem-solving and analytical skills through mathematical modeling, experimentation, and data analysis. The course emphasizes scientific inquiry, conceptual understanding, and practical investigation.					
IB Physics SL 2 A/B	SCI2097A/B	.5	CM IB NCAA	**IB Physics SL 1**	ϟ
PS-NGSS or ES-NGSS: IB Physics SL 2 is an NGSS-aligned course that builds on foundational concepts as students deepen their understanding of mechanics, thermal and nuclear physics, waves, electricity, fields, and energy. Students apply mathematical modeling, experimentation, and data analysis to investigate physical systems and communicate scientific ideas.					
IB Physics HL 1 A/B	SCI2117A/B	.5	CM IB NCAA	**Geometry** **Corequisite: Algebra 2**	ϟ
PS-NGSS or ES-NGSS: IB Physics HL 1 is NGSS-aligned and develops students' understanding of fundamental physical principles in greater depth, with an emphasis on modeling, mathematical analysis, and experimental investigation. Students explore complex topics while developing skills in data analysis, inquiry, and scientific communication. The course emphasizes conceptual understanding and the application of physics to explain natural phenomena.					
IB Physics HL 2 A/B	SCI2118A/B	.5	CM IB NCAA	**IB Physics HL 1**	ϟ
PS-NGSS or ES-NGSS: IB Physics HL 2 is NGSS-aligned and builds on advanced concepts as students apply their knowledge to complex and abstract physical systems across a range of contexts. Students conduct investigations, analyze data, and evaluate models to justify scientific conclusions. The course emphasizes independent inquiry, problem-solving, and preparation for IB assessment in physics.					
AP Physics 1 A/B	SCI2072A/B	.5	CM AP NCAA	**Geometry** **Corequisite: Algebra 2**	ϟ
PS-NGSS or ES-NGSS: AP Physics 1 is an NGSS-aligned, introductory college-level course that explores algebra-based concepts in motion, forces, and energy. Students develop problem-solving and scientific reasoning skills through inquiry and hands-on investigations.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP Physics 2 A/B	SCI2073A/B	.5	CM AP NCAA	**AP Physics 1 A/B Corequisite: Precalculus**	ϟ
PS-NGSS or ES-NGSS: AP Physics 2 is an NGSS-aligned introductory college-level course that builds on AP Physics 1 by exploring thermodynamics, electricity, magnetism, optics, and modern physics. Students deepen their understanding of physics through inquiry, hands-on investigations, and problem-solving.					
AP Physics C: Mechanics A/B	SCI2064A/B	.5	CM AP NCAA	**Physics A/B and Precalculus A/B**	ϟ
PS-NGSS or ES-NGSS: AP Physics C: Mechanics is an NGSS-aligned, introductory college-level course in which students use calculus to analyze motion, forces, energy, momentum, rotation, and other physical systems. Students develop advanced problem-solving and scientific reasoning skills in preparation for further study in engineering and the physical sciences.					
AP Physics C: ElecMagnet A/B	SCI2063A/B	.5	CM AP NCAA	**Physics A/B and Precalculus A/B**	ϟ
PS-NGSS or ES-NGSS: AP Physics C: Electricity and Magnetism is an NGSS-aligned, introductory college-level course in which students use calculus to analyze electric fields, circuits, magnetism, and electromagnetism. Students develop advanced problem-solving and scientific reasoning skills in preparation for further study in engineering and physics.					
AP Physics C: Mech/Elec/Mag A/B	SCI2065A/B	.5	CM AP NCAA	**Physics A/B and Precalculus A/B**	ϟ
PS-NGSS or ES-NGSS: AP Physics C: Mechanics, Electricity and Magnetism is an NGSS-aligned, calculus-based college-level course that explores motion, forces, energy, circuits, and electromagnetic fields. Students apply calculus to analyze physical systems and develop advanced problem-solving skills in preparation for further study in STEM, engineering, and physics.					
AP Physics C: Mech/Elec/Mag DP A/B		.5	CM AP NCAA	**Physics A/B and Precalculus A/B**	ϟ
PS-NGSS or ES-NGSS: AP Physics C: Mechanics, Electricity and Magnetism is an NGSS-aligned, calculus-based college-level course that explores motion, forces, energy, circuits, and electromagnetic fields. Students apply calculus to analyze physical systems and develop advanced problem-solving skills in preparation for further study in STEM, engineering, and physics.					
Anatomy and Physiology A/B	SCI2060 A/B	.5	CM NCAA	**Biology A/B Corequisite: Chemistry A/B**	ϟ
This advanced-level course is a study of the major systems of the human body with an exploration of medical-related fields. Anatomy and Physiology A topics include cells, tissues, and systems (skeletal, muscular, integumentary, and nervous). Anatomy and Physiology B topics include digestive, respiratory, circulatory, excretory, endocrine, and reproductive systems. This course is not NGSS aligned.					
Forensic Science A/B	SCI2069 A/B	.5	CM, NCAA	**Biology A/B and Chemistry A/B or Physics A/B**	ϟ
Forensic Science introduces students to the principles and practices of modern criminal investigation and forensic analysis. Students explore topics such as human anatomy, toxicology, DNA analysis, fingerprint identification, ballistics, and the investigation of fire, explosives, and emergency situations. The course emphasizes the application of scientific reasoning to real-world problems in criminal justice and is not NGSS-aligned.					
Environmental Science A/B	SCI2047 A/B	.5	NCAA	**Biology A/B**	★
This course explores ecological interactions through the systematic study of global realms-atmosphere, hydrosphere, lithosphere, and biosphere. Environmental Science B includes topics in land and water use, energy, food and natural resources, and populations. This course is not NGSS aligned.					
Molecular Biology A/B	SCI 2045 A/B	.5	CM, NCAA	**Biology A/B Corequisite: Chemistry A/B**	ϟ
Students study the major topics in molecular and cellular biology, including the cell cycle, cellular macromolecules, the structure and function of cellular organelles, cell communication, cellular energy flow, immunology, and special cell functions. The course includes laboratory investigations in which students use advanced methods of biotechnology to analyze cell structures and explore cellular processes. This course is not NGSS aligned.					
Horticultural Science A/B	SCI2112 A/B	.5		**Biology A/B**	★
Horticultural Science is designed for students interested in mastering fundamental techniques in the care and culture of plants in the home, business, and community by studying plant anatomy and physiology, growth conditions and greenhouse management, and soils, lawns and landscaping. Either semester can precede the other, however, it is not NGSS aligned.					

SOCIAL STUDIES

Three credits in social studies are required for graduation, including 1 U.S. History credit, 1 National, State, and local Government credit, and 1 World History credit. Courses that satisfy those requirements are listed below.

U.S. History	• United States History A and B • AP United States History A and B
National, State, and Local Government	• National, State, and Local Government A and B • AP United States Government and Politics with NSL A and B
World History	• Modern World History A and B • AP World History • IB History 1 A and B

MCPS students will be engaged in rigorous, accessible, relevant, and inclusive social studies inquiry that utilizes primary sources--including multiple perspectives from historically marginalized voices--to develop their capacity to think critically, read closely, communicate clearly, and take action to improve their community, country, and world.

Students will develop and use the following skills throughout their study of American History, National, State, and Local Government, Modern World History, and elective courses:

- analysis of multiple sources, including primary sources that demonstrate multiple perspectives of historically marginalized voices;
- application of concepts and knowledge of the past to problem-solving real-world issues of the present; and
- communication of social studies concepts and knowledge using a variety of formats, with emphasis on analytic and argumentative writing.

The required social studies courses include state requirements for environmental literacy and financial literacy instruction.

Additional information regarding the MCPS Social Studies program can be found at *www.montgomeryschoolsmd.org/curriculum/socialstudies*.

GRADE-LEVEL COURSE PATHWAYS AND PREREQUISITES

GRADE 9

- ❑ AP US History
  OR
- ❑ AP US Government
  OR
- ❑ Honors US History
  OR
- ❑ Honors Modern World History
  OR
- ❑ U.S History
  OR
- ❑ Modern World History

GRADE 10

- ❑ AP US History
  OR
- ❑ AP World History
  OR
- ❑ AP US Government
  OR
- ❑ Honors US History
  OR
- ❑ Honors Modern World History
  OR
- ❑ Honors NSL Government (EOC)
  OR
- ❑ U.S History
  OR
- ❑ Modern World History
  OR
- ❑ National, State and Local (NSL) Government (EOC)

GRADE 11

- ❑ AP US History
  OR
- ❑ AP World History
  OR
- ❑ AP US Government
  OR
- ❑ IB History Year 1
  OR
- ❑ Honors US History
  OR
- ❑ Honors Modern World History
  OR
- ❑ Honors NSL Government (EOC)
  OR
- ❑ U.S History
  OR
- ❑ Modern World History
  OR
- ❑ National, State and Local (NSL) Government (EOC)

GRADE 12

- ❑ AP/IB Social Studies Elective
  OR
- ❑ IB History Year 2
  OR
- ❑ Social Studies Elective
  OR
- ❑ Dual Enrollment
  OR
- ❑ Internship
  OR
- ❑ Apprenticeship

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP U.S. History	SOC2022A/B	.5	CM NCAA AP		ϟ
AP U.S. History covers U.S. history from 1491 to the present. Students analyze sources and develop historical arguments. The course emphasizes themes and connections across time and satisfies the graduation requirement for one year of U.S. History.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors U.S. History	SOC2001A/B	.5	CM NCAA		↗
In this course, students will use the Social Studies Literacy Skills with more complexity as they explore the history of the modern United States from 1870 to 1945 in more depth compared to US History A. Students will examine recurring themes, make connections to the present, and analyze how diverse populations of Americans and women shaped and were impacted by events. This honors course includes additional writing, projects, and more texts at higher reading levels compared to the on-level course. This course satisfies a requirement for graduation.					
U.S. History	SOC2000A/B	.5	NCAA		★
In this course, students will use the Social Studies Literacy Skills, taught and practiced in middle school social studies, with increasing complexity as they explore the history of the modern United States from the Gilded Age to the present. Throughout the course students will examine recurring themes, make connections to the present, and analyze how diverse populations of Americans, including African Americans, Americans with disabilities, Asian Americans, Latinx Americans, LGBTQ+ Americans, Native Americans, and women shaped and were impacted by events. This course satisfies a requirement for graduation.					
AP U.S. Government and Politics NSL	SOC2021A/B	.5	CM NCAA AP (7 SSL/8 SSL)		ϟ
AP U.S. Government and Politics examines the U.S. political system. Students study foundational documents, institutions, and civic processes. The course builds skills in analysis, argumentation, and civic engagement as well as satisfies the graduation requirement for national, state, and local government courses.					
Honors NSL Government	SOC2004A/B/X	.5	CM NCAA (7 SSL/8 SSL)		↗
Students will utilize inquiry and literacy skills to develop a deep understanding of the foundation and structures of the U.S. government, evaluate the importance of citizen participation, and analyze the impact of principles, laws, people, and organizations on domestic, foreign, and economic policies that affect our daily lives in more depth. Throughout the course, students study contemporary public policy issues while deepening their ability to analyze and evaluate sources and respond to document-based questions. This honors course includes additional writing, projects, and more texts at higher reading levels compared to the on-level course. This course satisfies a requirement for graduation. Students take the MCAP American Government End of Course exam at the end of the course.					
NSL Government	SOC2003A/B/BX	.5	NCAA (7 SSL/8 SSL)		★
Students will utilize inquiry and literacy skills to develop a deep understanding of the foundation and structures of the U.S. government, evaluate the importance of citizen participation, and analyze the impact of principles, laws, people, and organizations on domestic, foreign, and economic policies that affect our daily lives. Throughout the course, students study contemporary public policy issues while deepening their ability to analyze and evaluate sources and respond to document based questions. Students take the MSTAR American Government End of Course exam, and this course satisfies the Government graduation requirement.					
AP World History: Modern	SOC2047A/B	.5	CM NCAA AP		ϟ
AP World History: Modern explores global history from 1200 to the present. Students analyze developments and connections across regions. The course builds skills in historical reasoning and source analysis and satisfies the graduation requirement for one year of World History.					
Modern World History	SOC2006A/B	.5	NCAA		★
This world history course examines global developments from the 15th century to the early 1900s, utilizing comparative case studies and concept-based instruction to build historical thinking skills. By connecting past events to modern forces, students will develop a deep understanding of the complexity of contemporary global relationships. This course is a requirement for graduation.					
Honors Modern World	SOC2007A/B	.5	CM NCAA		↗
This world history course examines global developments from the 15th century to the early 1900s, utilizing comparative case studies and concept-based instruction to build historical thinking skills in more depth. By connecting past events to modern forces, students will develop a deep understanding of the complexity of contemporary global relationships. This honors course includes additional writing, projects, and more texts at higher reading levels compared to the on-level course. This course satisfies a requirement for graduation.					
IB History 1	SOC2043A/B	.5	CM IB NCAA		ϟ
IB History 1 satisfies the graduation requirement for one year of Modern World History by introducing global history from the 8th through the 20th century. Students study major developments such as state formation, industrialization, and war. The course builds skills in historical analysis and interpretation.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB History Asia and Oceania 2	SOC2109A/B	.5	CM IB	**IB History 1 A/B**	ϟ
IB History Asia and Oceania 2 examines historical developments in East Asia. Students study political, economic, and social changes through case studies. The course emphasizes regional analysis and historical reasoning.					
IB History Africa and Middle East 2	SOC2110A/B	.5	CM IB	**IB History 1 A/B**	ϟ
IB History Africa and Middle East 2 provides an in-depth study of historical developments in these regions. Students explore colonialism, nationalism, and economic change. The course builds advanced historical thinking skills.					
IB History Europe 2	SOC2111A/B	.5	CM IB	**IB History 1 A/B**	ϟ
IB History Europe 2 examines major transformations in European history. Students study revolutions, industrialization, and world wars. The course emphasizes analysis of change and continuity.					
IB History Americas 2	SOC2112A/B	.5	CM IB	**IB History 1 A/B**	ϟ
IB History Americas 2 explores Latin American history and social movements. Students analyze issues such as authoritarianism and the Cold War. The course emphasizes evidence-based historical reasoning.					
CE Advanced Social Studies: Government, Politics and Law	SOC5124				ϟ
This course introduces the foundational legal and institutional frameworks that shape our modern society, ranging from constitutional principles to the mechanics of public policy. It offers a comprehensive look at how legislative decisions and judicial rulings impact everyday life. Students will earn college credit while gaining a clear understanding of the interconnected nature of state and federal governance.					
IB Global Politics SL	SOC2018A/B	.5	CM IB		ϟ
IB Global Politics SL explores key political concepts such as power, equality, and sustainability. Students analyze political systems and issues at local and global levels. The course emphasizes case studies and global awareness.					
African American History	SOC2019	.5	NCAA		★
This course surveys the individuals, forces, and historical events that define the African American experience within the United States. By examining these influences and the key figures who shaped the nation, students explore how the Black experience serves as a testing ground for American democratic ideals. The curriculum emphasizes the profound impact of major historical events on African Americans throughout the country's development.					
African American History 2	SOC2020	.5	NCAA		★
This course surveys the individuals, forces, and historical events that define the African American experience within the United States. By examining these influences and the key figures who shaped the nation, students explore how the Black experience serves as a testing ground for American democratic ideals. Furthermore, the curriculum emphasizes the profound impact of major historical events on African Americans throughout the country's development.					
AP Comparative Government and Politics	SOC2024A/B	.5	CM NCAA AP		ϟ
AP Comparative Government and Politics examines political systems around the world. Students compare six countries to understand political structures and global issues. The course emphasizes data analysis, comparison, and argument development.					
Latin American History	SOC2028	.5	NCAA		★
This course provides an overview of the cultural backgrounds and historical development of the nations of Latin America, as well as their roles in the world today and their future challenges and opportunities. Students examine issues related to population distribution, cultural and economic influences, land ownership, and political and social change.					
Ancient Mediterranean Civilizations	SOC2031	.5	NCAA		★
This course surveys societal evolution from the Fertile Crescent through the rise of Greek and Roman civilizations. It examines the legacies of the Near East, traces Greek history from its origins to Alexander's empire, and analyzes the roots of Western thought. The curriculum concludes with a comprehensive study of the Roman Era.					
Medieval History	SOC2032	.5	NCAA		★
This course surveys European history from the fall of Rome through the crises that characterized the late Middle Ages. Topics include the rise of Christianity and Islam and the conflicts between these religious forces, the characteristics of medieval European society, and major crises, such as the Black Plague, that contributed to the end of this period.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Hip Hop History and Culture	SOC2035	.5	NCAA		★
This course traces the development and impact of Hip Hop culture on contemporary society, with a focus on enhancing students' cultural competence and sociopolitical consciousness. Students will explore how marginalized groups used the strength of their cultural capital to create and sustain Hip Hop culture as a dynamic and empowering form of expression and survival. The course also examines how issues such as race, gender, class, violence, identity, self-expression, socio-emotional development, censorship, and politics are explored through the lens of Hip Hop culture.					
AP European History	SOC2037A / SOC2037B	.5	CM NCAA AP		ϟ
AP European History studies European history from about 1450 to the present. Students analyze sources and build historical arguments. The course emphasizes connections across time, themes, and regions.					
Eastern Asia	SOC2038	.5	CM NCAA		★
This course provides an overview of Chinese, Korean, and Japanese history, emphasizing the cultural and intellectual developments of each country to broaden students' understanding of Asia. Topics include traditional cultures, the impact of European contact, and contemporary issues and developments.					
World Military History	SOC2040	.5			★
This course examines the history of diverse cultures and the multifaceted political, economic, and social impacts of warfare on their development. Participants analyze how warrior classes reflected their respective societies and explore how conflict has historically influenced global power dynamics. Through this study, students evaluate both the positive and negative legacies of war across different regions and eras.					
The Middle East	SOC2041	.5	NCAA		★
This course provides an overview of the Middle East and its history. It emphasizes the region's role as the cradle of early civilizations, the crossroads of major empires, and the birthplace of three major world religions. Special attention is given to the Middle East's influence on world civilizations, its historical significance across time, and the historical context needed to better understand present-day conditions in the region.					
IB Psychology 1	SOC2044A/B	.5	CM IB NCAA		ϟ
IB Psychology 1 introduces the study of behavior and mental processes. Students explore multiple perspectives and research methods. The course emphasizes analysis of human behavior.					
IB Philosophy SL	SOC2046A / SOC2046B	.5	CM IB NCAA		ϟ
IB Philosophy SL engages students with major philosophical questions and thinkers. Students develop argumentation and reasoning skills. The course emphasizes critical thinking and reflection.					
IB Social and Cultural Anthropology SL	SOC2048A/B	.5	CM IB NCAA		ϟ
IB Social Anthropology SL studies human culture and society from a comparative perspective. Students explore diversity and cultural practices. The course emphasizes global awareness and analysis.					
Women's Studies	SOC2051A/B	.5	NCAA		★
Students examine how the political, economic, and social status of women has evolved over time in the United States and globally. The course analyzes differing cultural and socioeconomic contexts to highlight advances in areas like education, health, ad family roles. Learners use historical and contemporary examples to evaluate significant female contributions to national and global concerns.					
Economics	SOC2052	.5	NCAA		★
This course explains how the U.S. economy works with a focus on how individuals and businesses make financial decisions. Students may also study larger topics like international trade and how different countries manage their money. These ideas are taught using both classroom theories and real-world examples.					
Psychology 1	SOC2053	.5	NCAA		★
Students are introduced to the science of human behavior and learn how to apply psychological ideas to their own lives. The course looks at how we think, how our brains work, and the methods scientists use to study the mind. Learners also explore how people grow over their lifetime and how social factors influence our actions.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Psychology 2	SOC2054	.5	NCAA		★
Students are introduced to the science of human behavior and learn how to apply psychological ideas to their own lives. The course looks at how we think, how our brains work, and the methods scientists use to study the mind. Learners also explore how people grow over their lifetime and how social factors influence our actions.					
Sociology 1	SOC2055	.5	NCAA		★
This course looks at how groups of people interact and the different factors, like culture and social status, that bring people together or pull them apart. Students analyze how social rules and traditions change over time, specifically within families and communities. Advanced study includes applying these ideas to American life and doing original research on social issues.					
Sociology 2	SOC2056	.5	NCAA		★
This course looks at how groups of people interact and the different factors, like culture and social status, that bring people together or pull them apart. Students analyze how social rules and traditions change over time, specifically within families and communities. Advanced study includes applying these ideas to American life and doing original research on social issues.					
Law	SOC2059	.5	NCAA		★
This course helps students understand the legal steps used to find justice and maintain order in American society. Students look at the history of law and study major areas like criminal justice, lawsuits, and property rights. The lessons focus on how every person can use and participate in the legal system.					
Law 2	SOC2060	.5	NCAA		★
Law 2 offers a deeper look at the history of the legal system and how courts interpret the rules today. Students apply previous court decisions to real-life situations involving the Constitution, family issues, and consumer rights. The course includes chances to see the legal system in action through guest speakers or mock trials.					
Philosophy	SOC2063	.5	NCAA		★
This course introduces students to philosophy by looking at the lives and writings of famous thinkers. Learners focus on big questions about the universe, whether we have free will, and how people should relate to the government. The lessons also explore how society decides what is right and wrong in the modern world.					
AP Macroeconomics	SOC2064	.5	CM NCAA AP		ϟ
AP Macroeconomics explores the overall economy. Students study national income, economic growth, and government policies. The course uses graphs and data to explain economic concepts.					
AP Microeconomics	SOC2065	.5	CM NCAA AP		ϟ
AP Microeconomics focuses on individual economic decision-making. Students study markets, supply and demand, and the role of government. The course emphasizes analysis using graphs and real-world data.					
Comparative Religion	SOC2067	.5	NCAA		★
Comparative Religion courses survey and compare the values of several world religions, offering students a basic understanding of the world's diverse faiths and practices. Typical topics include the belief systems of adherents and the relationships between humans, nature, ancestors, and the spiritual world. Furthermore, the curriculum examines the unique historical development of each individual religion.					
IB Geography SL	SOC2073A/B	.5	CM IB		ϟ
IB Geography SL examines global issues such as sustainability and climate change. Students analyze patterns at local and global levels. The course builds environmental and global awareness.					
LGBTQ Studies	SOC2087	.5	NCAA		★
This interdisciplinary course explores LGBTQ+ identity, history, and culture, welcoming all students regardless of how they identify. The first half of the curriculum examines the factors that shape identity through the lens of intersectionality and investigates the historical narrative of resistance and resilience within the U.S. community. Finally, students analyze the cultural contributions of LGBTQ+ individuals in media before addressing contemporary challenges faced at local, national, and global levels.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Political Behavior and Psychology	SOC2088	.5	NCAA		★
This course applies concepts from social and cognitive psychology to analyze issues within the political process. The course specifically focuses on topics caused by or resulting in group conflict, utilizing various media sources to examine the psychological roots of current domestic and international tensions. Through diverse assignments, students will apply these concepts to explain the causes of various global issues and propose potential solutions.					
American History Through Film	SOC2089	.5	NCAA		★
In this course, students study modern American history by viewing and discussing films that explore the nation's political, social, economic, and racial development. Beyond analyzing historical events, the curriculum examines the enduring legacy of issues like racism, poverty, and ideology in contemporary American culture. The course also emphasizes film appreciation by concentrating on the cinematography and cultural importance of each featured work.					
IB Social and Cultural Anthropology 2	SOC2092A/B	.5	CM IB NCAA		ϟ
IB Social Anthropology 2A continues the study of culture and society. Students deepen understanding of cultural diversity and systems. The course emphasizes analysis and comparison.					
Environmental Justice	SOC2093				★
This course introduces students to environmental inequalities stemming from class, gender, race, and other social disparities. Participants will investigate the global distribution of environmental benefits and hazards while tracing the emergence of various environmental justice movements. The curriculum covers diverse topics ranging from climate change and food scarcity to energy transitions and conservation.					
Holocaust Studies	SOC2095	.5	NCAA		★
This course provides an in-depth historical analysis of the ideas and events that led to the Holocaust, its occurrence, and its aftermath. Students analyze the roles of antisemitism, propaganda, and German policies in creating a climate of catastrophe, alongside an examination of Jewish experiences in ghettos and concentration camps. The curriculum explores the legacy of the Holocaust by studying Jewish resistance, the Nuremberg Trials, and the persistent impact of contemporary antisemitism.					
Positive Psychology	SOC2097	.5	NCAA		★
In this course, students will examine how positive psychology influences happiness, well-being, and the overall health of communities. Students will explore common beliefs about what brings happiness and analyze research that explains why these expectations are often inaccurate. Through the study of positive psychology, students will learn strategies and principles that can enhance daily experiences, strengthen well-being, and increase overall life satisfaction.					
Hispanic/Latinx American Studies	SOC2099	.5	NCAA		★
This course examines historical and contemporary issues that shape the political, social, and cultural lived experiences of Hispanic/Latino/a/e/x communities in the United States. Students will explore the meanings and complexities of identity labels such as Hispanic and Latino/a/e/x, while also studying the diversity of cultures, histories, and experiences within these communities. In addition, students will analyze the many ways Hispanic/Latino/a/e/x individuals and communities have demonstrated agency, resilience, and resistance throughout history and in contemporary society.					
Muslim Global Experiences	SOC2100	.5			★
This course explores the diverse cultures, geography, and history of Muslims across Africa, Asia, the Middle East, Europe, and the United States. By examining the global spread of these communities, students will actively address common misconceptions and the systemic discrimination many Muslims face worldwide. The curriculum also highlights how Muslim populations exercise agency and resistance to counter challenges, providing a comprehensive understanding of their global experiences.					
AP African American Studies	SOC2101A/B	.5	CM NCAA AP		ϟ
AP African American Studies explores African American experiences across history and disciplines. Students study topics from early African civilizations to contemporary issues. The course builds skills in historical, literary, and data analysis.					
Personal Finance	SOC2102	.5	5 SSL		★
Students will develop the skills and knowledge needed to make informed financial decisions. The course emphasizes the importance of financial responsibility, effective money management, and thoughtful planning for future financial success.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Jewish Peoplehood Throughout History	SOC2104	.5			★
This course introduces students to the origins and global experiences of the Jewish people through the lenses of race, ethnicity, culture, and religion. By examining global history from a Jewish perspective, students will explore interactions with diverse regions and historical eras, including Greek, Roman, Persian, Ethiopian, European, and American history.					

IB Psychology 2	SOC2105A/B	.5	CM IB NCAA	**IB Psychology 1**	ϟ
IB Psychology 2A deepens understanding of psychological theory and research. Students apply concepts to analyze behavior and mental processes. The course emphasizes critical thinking and application.					

IB Economics 1 A/B	SOC2107A/B	.5	CM IB NCAA		ϟ
IB Economics 1 introduces macroeconomics and microeconomics. Students study markets, government policy, and global systems. The course emphasizes analysis using models and data.					

IB Economics 2 A/B	SOC2108A/B	.5	CM IB NCAA	**IB Economics 1**	ϟ
IB Economics 2 deepens understanding of economic theory and decision making. Students analyze economic issues at multiple levels. The course emphasizes modeling and real-world application.					

IB Religion and Societies A/B	SOC2050A/B	.5	CM IB NCAA		ϟ
IB Religion and Societies is an analytical and empathetic study of the beliefs, practices, and traditions of major world religions, helping students understand the diversity of religious perspectives across cultures and societies. Students explore contemporary religious issues and examine the impact of religion on ethical, legal, national, and global concerns while developing respect for diverse beliefs and fostering international understanding.					

AP Business with Personal Finance	SOC2119A/B	.5	CM AP		ϟ
AP Business with Personal Finance introduces college-level concepts in entrepreneurship, marketing, finance, accounting, and management alongside personal financial planning. Students apply budgeting, saving, borrowing, and investing strategies through case studies and hands-on projects. Developing a business concept and financial recommendations for a fictional household strengthens decision-making, communication, collaboration, and leadership skills.					



VISUAL & PERFORMING ARTS

The purpose of the Visual & Performing Arts curriculum is to open the minds of students to new and diverse worlds and cultures and enable them to creatively express themselves and value the multiple perspectives of others. In the arts, students are actively involved learners who become creative and critical problem solvers, independent and divergent thinkers, self-motivated workers, and innovators.The skills learned through study and practice of the Visual & Performing Arts ensure that students are equipped for future studies and careers. The curricula in Visual & Performing Arts courses are guided by the four artistic processes identified in the MCPS Frameworks: Creating, Performing/ Presenting, Responding, and Connecting; and are aligned to both the National Visual & Performing Arts and Maryland State Visual & Performing Arts standards.

The MSDE Comprehensive Arts Pathway is an award from the Maryland State Department of Education (MSDE) that recognizes students who have excelled in an art form throughout their high school experience. Students must earn 4 credits in 9th-12th grade arts courses through which three (3) levels must be the same media. Pathway completion must also include participation in one of the following:

- MCPS Sponsored Countywide Ensemble or
- Audition for an MCPS-approved All State Ensemble or
- Participation in an MCPS-approved Exhibition or
- Completion of an approved Capstone Arts Project or
- Completion of an Industry Recognized Credential (IRC) in VPA

One credit in Visual & Performing Arts is required for graduation: Courses that satisfy the visual & performing arts requirement are marked FA.

DANCE

DANCE TECHNIQUE	SPECIALTY COURSES	PERFORMANCE ENSEMBLES*	IB DANCE
			(* indicates audition required)
Dance As A Fine Art **AND/OR** Dance *HPE2017 PE credit Dance 2 Dance 3 Dance 4	Jazz Dance Modern Dance Hip Hop Dance Choreography 1 Choreography 2	*Junior Dance Company *Dance Company	*Students shoud have a minimum 2 years of previous dance coursework or instructor permission* IB Dance 1 IB Dance 2

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Dance as Fine Art A/B	ART2000A/B	.5	FA		
Students learn basic technical skills needed for a variety of dance genres, and the history of dance in many cultures. The elements of dance are built upon and explored, with applications directed at movement problem solving, original choreography, and improvisational skills. Public performances during and after school are required to meet course objectives.					
Dance 2 A/B	ART2003A/B	.5	FA CM	**Dance as Fine ArtA/B**	ϟ
In this repeatable 2nd year course, students will study a variety of genres to continue the development of technical and artistic dance skills. Students have the opportunity to study technique, history, criticism, and choreography, and to further their kinesthetic knowledge and achievement. Public performances during and after school are required to meet course objectives.					
Dance 3 A/B	ART2004A/B	.5	FA CM	**Dance 2 A/B**	ϟ
In this repeatable 3rd year course, students will study a variety of genres to continue the development of technical and artistic dance skills. Students have the opportunity to study technique, history, criticism, and choreography, and to further their kinesthetic knowledge and achievement. Public performances during and after school are required to meet course objectives.					
Dance 4 A/B	ART2179A/B	.5	FA CM	**Dance 3A/B**	ϟ
The development of technical and artistic dance skills. Students have the opportunity to study technique, history, criticism, and choreography, and to further their kinesthetic knowledge and achievement. Public performances during and after school are required to meet course objectives.					
Junior Dance Company	ART2185A/B	.5	FA CM	**Audition based course**	ϟ
This course in jazz dance with an emphasis on development of technique, self-expression, and creativity. Students explore dance concepts through aesthetic, histo This auditioned based performance ensemble, focuses on the demands of repertoire and by refining technique skills in a performance based setting. The ensemble has an active performing schedule and offers leadership opportunities for student choreographers. Public performances during and after school are required to meet course objectives. This course may be repeated for credit. rical, cultural, performance, and criticism. This course may be repeated for credit.					
Dance Company A/B	ART2010 A /B	.5	FA CM	**Audition based course**	ϟ
This auditioned based performance ensemble, focuses on the demands of repertoire and by refining technique skills in a fast paced setting. The ensemble has a very active performing schedule and offers leadership opportunities for student choreographers. Public performances during and after school are required to meet course objectives. This course may be repeated for credit.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Choreography 1 A/B	ART2016A/B	.5	FA CM	**1 credit in dance or instructor permission**	ϟ
This course is for experienced dancers to learn how to create organic and purposeful movement for communication and self expression through choreographic tools, vocabulary and themes. Performances are required and students will have the opportunity to showcase their choreographic works for concerts and other opportunities. This course may be repeated for credit.					
Choreography 2 A/B	ART2180 A /B	.5	FA CM	**Choreography 1 A/B**	ϟ
This course is for experienced dancers, who have completed Choreography 1 and will continue to expand choreographic tools and structures into larger ensemble works. Performances are required and students will have the opportunity to showcase their choreographic works for concerts and other opportunities. This course may be repeated for credit.					
Hip Hop Dance A/B	ART2009A/B	.5	FA CM	**Dance as Fine ArtA/B**	ϟ
This repeatable course provides students with training in hip hop and emphasizes improving students' technique. Students will explore the history of hip hop along with the pioneers, culture, aesthetics, criticism, and performance. Public performances during and after school are required to meet course objectives.					
Modern Dance A/B	ART2005A/B	.5	FA CM	**Dance as Fine ArtA/B**	ϟ
This repeatable course is designed to teach the fundamentals of modern dance and self-expression through movement, improvisation, and the elements of Dance. Students will explore the history of modern dance along with the pioneers, culture, aesthetics, criticism, and performance. Public performances during and after school are required to meet course objectives.					
Jazz Dance	ART2011 A/B	.5	FA CM	**Dance as Fine Art A/B**	ϟ
This course in jazz dance with an emphasis on development of technique, self-expression, and creativity. Students explore dance concepts through aesthetic, historical, cultural, performance, and criticism. This course may be repeated for credit.					
IB Dance 1 A/B	ART2124A/B	.5	FA CM IB	**2.0 credits in dance or instructor permission**	ϟ
IB Dance 1 introduces students to dance through the study of performance, choreography, and analysis across a range of cultural traditions. Students develop technical and creative movement skills while exploring how meaning is communicated through dance and building a foundation for independent choreography, performance, and research.					
IB Dance 2 A/B	ART2125A/B	.5	FA CM IB	**IB Dance 1 A/B**	ϟ
IB Dance 2 builds on foundational skills as students complete IB Dance assessment tasks in choreography, performance, and dance investigation. Students refine their technique, develop original dance works, and engage in comparative study of dance traditions from different cultures while demonstrating growth as performers, choreographers, and critical thinkers.					

GENERAL MUSIC

PIANO	GUITAR	TECHNOLOGY/THEORY
Piano 1 Piano 2 Piano 3 Piano 4	Guitar 1 Guitar 2 Guitar 3 Guitar 4	Music Technology 1 Music Technology 2 IB Advanced Music 2 AP Music Theory & Composition IB Advanced Music 1

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Piano, HS 1 A/B	ART2071A/B	.5	FA		
Students engage in the core artistic processes of creating, performing, and responding to music through use of a digital piano keyboard. Instruction emphasizes foundational piano technique and musical literacy through reading simple sheet music and developing independent practice skills.					
Piano, HS 2 A/B	ART2072A/B	.5	FA CM	**Piano, HS 1 A/B or permission of the instructor based on an audition**	ϟ
Building on HS Piano 1, this course guides students from beginning to intermediate piano skills. Students will expand their knowledge of music theory, notation, and chord charts while creating, performing, and analyzing piano music across a variety of genres.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Piano, HS 3 A/B	ART2073A/B	.5	FA CM	**Piano, HS 2 A/B or permission of the instructor based on an audition**	ϟ
Building on HS Piano 2, this course guides students from intermediate to advanced piano techniques while deepening their understanding of music theory, notation, and chord charts. Students will develop independent practice habits, analyze cultural and historical contexts of repertoire, and create, perform, and evaluate piano music across diverse genres.					
Piano, HS 4 A/B	ART2074A/B	.5	FA CM	**Piano, HS 3A/B or permission of the instructor based on an audition**	ϟ
Building on HS Piano 3, students advance from intermediate-advanced to highly sophisticated piano techniques while deepening their mastery of music theory, advanced literacy, and chord chart reading. Through effective, independent practice habits, students create, perform, and analyze music across a wide variety of styles and genres at an advanced level.					
Music Theory and Composition, AP A/B	ART2076A/B	.5	FA CM AP	**Permission of the instructor based on previous musical experience.**	ϟ
Students with a strong interest and preparation in music will engage in intensive sight-singing, dictation, composition, and improvisation to meet the rigorous requirements of the College Board AP Music Theory curriculum. Through active listening and score analysis, they will progress into reading, writing, and analyzing music of increasing structural complexity.					
Guitar, HS 1 A/B	ART2082A/B	.5	FA		
Through the study of acoustic guitar, students engage in creating, performing, and responding to music while mastering foundational mechanics, tuning, tablature, chord charts, and basic strumming patterns. Students learn independent practice habits while exploring the cultural, historical, and social contexts of diverse guitar repertoire					
Guitar, HS 2 A/B	ART2083A/B	.5	FA CM	**Guitar, HS 1 A/B or permission of the instructor based on an audition**	ϟ
Building on Guitar 1, students learn barred chords, new rhythms, fingerpicking, and scales to play and write acoustic guitar music across different genres. As they build better independent practice habits, students also discover the history and culture behind the songs they play.					
Guitar, HS 3 A/B	ART2080A/B	.5	FA CM	**Guitar, HS 2 A/B or permission of the instructor based on an audition**	ϟ
Expanding on skills learned in Guitar 2, students in this course engage in the core artistic processes of creating, performing, and responding to music using the acoustic guitar. Instruction focuses on continued musical literacy through the performance of varied meters, harmonic suspensions, and complex fingerpicking and strumming techniques. Students demonstrate independent practice skill and exploring the cultural, historical, and social contexts of diverse guitar repertoire.					
Guitar, HS 4 A/B	ART2081A/B	.5	FA CM	**Guitar, HS 3A/B or permission of the instructor based on an audition**	ϟ
Designed for highly experienced guitarists, this course builds on Guitar 1–3 by mastering advanced chord structures, scales across all fretboard positions, and complex soloing and fingerstyle techniques. Through independent practice, students create, perform, and analyze guitar music across diverse styles while exploring the cultural and historical background of the repertoire.					
Music Technology A/B	ART2084A/B	.5	FA CM		
Music Technology 1 is a survey course that offers students the opportunity to develop a basic understanding of the many tools utilized in audio production, recording, arrangement, and digital composition. Students use Industry Standard software to compose, record, mix and master audio, develop relevant listening and analysis skills needed to work effectively in a recording studio.					
Music Technology 2 A/B	ART2132A/B	.5	FA CM	**Music Technology 1 or permission from instructor**	ϟ
Music Technology 2 builds upon foundational audio production concepts, advancing students into multi-track recording, sound design, and complex digital composition using industry-standard software. Students refine their critical listening skills while mastering advanced mixing and mastering techniques.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Music 1 A/B	ART2079A/B	.5	FA CM IB	**Permission of the instructor based on previous musical experience.**	ϟ
IB Advanced Music 1 introduces students to musical fundamentals through the exploration, creation, and performance of diverse global styles and traditions. Students build independent skills as performers, composers, and critical listeners by analyzing music within personal, local, and cultural contexts.					

IB Music 2 A/B	ART2128A/B	.5	FA CM IB	**Permission of the instructor based on previous musical experience.**	ϟ
IB Music 2 builds on foundational musical knowledge and skills as students complete IB Music assessment tasks and develop a comprehensive portfolio of performance, composition, and musical inquiry. Students refine their abilities as performers, creators, and critical thinkers by exploring music from diverse contexts and presenting original and interpreted works.					

CHORAL MUSIC

CHORUS

(* indicates audition required)

Chorus 1 *Chorus 2 *Chorus 3 *Show Choir *Chamber Choir

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Chorus, HS 1 A/B	ART2087A/B	.5	FA		
Students in this choir engage in the core artistic processes of creating, performing, and responding to varied musical styles while developing vocal techniques, music literacy, and multi-part sight-singing using state-level 3/4 repertoire. Class may be offered in formats such as Concert, Treble, or Baritone Choir and requires participation in a minimum of two school concerts along with potential adjudication performances.					

Chorus, HS 2 A/B	ART2088A/B	.5	FA CM	**Chorus, HS 1 A/B or permission of the instructor based on an audition, experience in previous ensembles and the need for a balanced ensemble.**	ϟ
Students in this intermediate choir engage in the core artistic processes of creating, performing, and responding while developing advanced vocal mechanics, ensemble blending, and multi-part sight-singing in multiple keys using state-level 4/5 repertoire across diverse styles. Class may be offered in formats such as Concert Choir, Gospel Choir, or Jazz/Contemporary Vocal Choir and requires participation in a minimum of two school concerts along with potential adjudication performances.					

Chorus, HS 3 A/B	ART2089A/B	.5	FA CM	**Chorus, HS 2 A/B or permission of the instructor based on an audition, experience in previous ensembles and the need for a balanced ensemble.**	ϟ
Students in this advanced chorus engage in the core artistic processes of creating, performing, and responding while developing advanced vocal mechanics, ensemble blending, and multi-part sight-singing in multiple keys using state-level 5/6 repertoire across diverse styles. Class may be offered in formats such as Advanced Treble/Baritone/Mixed Choir, or Gospel Choir. This ensemble has an active performance schedule which requires participation in a minimum of two school concerts along with potential other required performances. An audition and/or a prerequisite of HS Chorus 1 and/or 2 may be required to participate.					

Chamber Choir A/B	ART2090A/B	.5	FA CM	**Permission of the instructor based on an audition, experience in previous ensembles and the need for a balanced ensemble.**	ϟ
Students in this advanced, small-ensemble chorus engage in the core artistic processes of creating, performing, and responding to music through highly complex, often unaccompanied state-level 5/6 repertoire. Instruction focuses on refining advanced vocal control, ensemble blending, and independent multi-part sight-singing in a demanding environment that requires a highly active performance schedule of multiple concerts, school events, and festivals. An audition and/or a prerequisite of HS Chorus 1, 2, and/or 3 may be required to participate.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Choir, Show A/B	ART209A/B	.5	FA CM	**Permission of the instructor based on an audition, experience in previous ensembles and the need for a balanced ensemble.**	ϟ
Students in this advanced, small-ensemble chorus engage in the core artistic processes of creating, performing, and responding to music through highly complex, often unaccompanied state-level 5/6 repertoire. Instruction focuses on refining advanced vocal control, ensemble blending, and independent multi-part sight-singing in a demanding environment that requires a highly active performance schedule of multiple concerts, school events, and festivals. An audition and/or a prerequisite of HS Chorus 1, 2, and/or 3 may be required to participate.					

INSTRUMENTAL MUSIC

BAND	ORCHESTRA	JAZZ	OTHER
			(* indicates audition required)
Beginning Band HS *Concert Band *Symphonic Band *Wind Ensemble	Beginning Orchestra HS *Concert Orchestra *Symphonic Orchestra *Philharmonic Orchestra	*Jazz Lab Band *Jazz Ensemble	Color Guard

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Beginning Band HS A/B	ART2092A/B	.5	FA		
Beginning Band HS is for high school students with no instrumental music experience who wish to learn how to play an instrument from the woodwind, brass or percussion families. The development of skills necessary to prepare students for a more advanced high school band course is stressed, and additional experiences may include athletic bands, solo/chamber performance, or musical theatre opportunities. Public performances during and after school are required to meet course objectives.					
Concert Band A/B	ART2093A/B	.5	FA	**MS Band 3 OR Beginning Band HS A/B OR based on an audition, experience in previous ensembles and instrumentation needs.**	
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include athletic bands, solo/chamber performance, or musical theatre opportunities. Prerequisite: MS Band 3 OR Beginning Band HS A/B OR based on an audition, experience in previous ensembles and instrumentation needs.					
Symphonic Band A/B	ART2094A/B	.5	FA CM	**Concert Band A/B OR based on an audition, experience in previous ensembles and instrumentation needs.**	ϟ
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include athletic bands, solo/chamber performance, or musical theatre opportunities. Prerequisite: Concert Band A/B OR based on an audition, experience in previous ensembles and instrumentation needs.					
Wind Ensemble A/B	ART2154A/B	.5	FA CM	**Symphonic Band A/B OR based on an audition, experience in previous ensembles and instrumentation needs, OR permission of instructor based on audition.**	ϟ
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include athletic bands, solo/chamber performance, or musical theatre opportunities. Prerequisite: Symphonic Band A/B OR based on an audition, experience in previous ensembles and instrumentation needs,.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Beginning Orchestra HS A/B	ART2096A/B	.5	FA		
Beginning Orchestra HS is for high school students with no instrumental music experience who wish to learn how to play an instrument from the string family. The development of skills necessary to prepare students for a more advanced high school orchestra course is stressed, and additional experiences may include solo/chamber performance or musical theatre opportunities. Public performances during and after school are required to meet course objectives.					
Concert Orchestra A/B	ART2097A/B	.5	FA	**MS Orchestra 3 OR Beginning Orchestra HS A/B OR based on an audition, experience in previous ensembles and instrumentation needs.**	
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include solo/chamber performance or musical theatre opportunities. Prerequisite: MS Orchestra 3 OR Beginning Orchestra HS A/B OR based on an audition, experience in previous ensembles and instrumentation needs.					
Symphonic Orchestra A/B	ART2099A/B	.5	FA CM	**Concert Orchestra A/B OR based on an audition, experience in previous ensembles and instrumentation needs.**	ϟ
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include solo/chamber performance or musical theatre opportunities. Prerequisite: Concert Orchestra A/B OR based on an audition, experience in previous ensembles and instrumentation needs.					
Philharmonic Orchestra A/B	ART2155A/B	.5	FA CM	**Symphonic Orchestra A/B OR based on an audition, experience in previous ensembles and instrumentation needs.**	ϟ
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes. Public performances during and after school are required to meet course objectives, and additional experiences may include solo/chamber performance or musical theatre opportunities. Prerequisite: Symphonic Orchestra A/B OR based on an audition, experience in previous ensembles and instrumentation needs.					
Jazz Lab Band A/B	ART2150A/B	.5	FA	**Concert Band A/B, OR Concert Orchestra A/B, OR based on an audition, experience in previous ensembles and instrumentation needs.**	
In this course, which may be repeated unlimited times for credit, students will develop and refine the skills related to creating, performing, and responding to music learned in previous instrumental music classes with an emphasis on jazz styles and techniques. Public performances during and after school are required to meet course objectives, and additional experiences may include athletic bands, solo/chamber performance or musical theatre opportunities. Prerequisite: Concert Band A/B, OR Concert Orchestra A/B, OR based on an audition, experience in previous ensembles and instrumentation needs.					
Jazz Ensemble A/B	ART2100A/B	.5	FA CM	**Based on an audition, experience in previous ensembles and the need for a balanced ensemble.**	ϟ
This course, which may be repeated unlimited times for credit, is a highly demanding ensemble, generally between 14 and 22 students, requiring an advanced level of instrumental experience, where students develop a high level of skill in the performance of jazz, blues, jazz-rock, soul, and other styles of music. Public performances during and after school are required to meet course objectives, and additional experiences may include athletic bands, solo/chamber performance, or musical theatre opportunities. Prerequisite: Permission of the instructor based on an audition, experience in previous ensembles and instrumentation needs.					
Color Guard	ART2177	.5	FA		
In this course, which may be repeated unlimited times for credit, students who are part of the Color Guard section of the school's marching band will develop skills that will enable them to design and perform visual routines to music related to the marching arts. In addition to performing, creating and responding activities are included. Public performances during and after school are required to meet course objectives.					

THEATRE

LEVEL 1	LEVEL 2	LEVEL 3	IB THEATRE
Theatre HS 1	Theatre HS 2 Stage Design Musical Theatre	Advanced Acting Play Directing	*Students shoud have a minimum 2 years of previous dance coursework or instructor permission* IB Theatre 1 IB Theatre 2

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Theatre 1 HS A/B	ART2106A/B	.5	FA		
Students gain an understanding of the entire process through which human behavior is translated into a written drama, produced as a play, and presented to an audience. The study of theatre aesthetics, history, and criticism is balanced with workshop training in acting and basic Theatre production skills, and public performances during and after school may be required to meet course objectives.					
Theatre 2 HS A/B	ART2107A/B	.5	FA CM	**Theatre 1 HS A/B, or permission of the instructor**	ϟ
Students in this course continue to build on the knowledge and skills learned in Theatre 1 through the lenses of creating, performing, and responding. Public performances during and after school may be required to meet course objectives. Prerequisite: Attainment of outcomes for HS Theatre 1 A & B, or permission of the instructor.					
Stage Design A/B	ART2104A/B	.5	FA CM	**Theatre 1 HS A/B, or permission of the instructor**	ϟ
Students in this course continue to build on the knowledge and skills learned in Theatre 1 & Theatre 2 through the lenses of creating, performing, and responding, with a focus on stage design and technical theatre. Public performances during and after school may be required to meet course objectives. Prerequisite: Attainment of outcomes for HS Theatre 1 & 2, or permission of the instructor.					
Musical Theatre A/B	ART2153A/B	.5	FA CM	**Theatre HS 1 A/B**	ϟ
In this course, which may be repeated unlimited times for credit, students who are part of the Color Guard section of the school's marching band will develop skills that will enable them to design and perform visual routines to music related to the marching arts. In addition to performing, creating and responding activities are included. Public performances during and after school are required to meet course objectives.					
Advanced Acting A/B	ART2103A/B	.5	FA CM	**Theatre 2 HS A/B, Stage Design A/B, Musical Theatre A/B, or permission of the instructor**	ϟ
Semester A: Students in this course continue to build on the knowledge and skills learned in Theatre 1 & Theatre 2 through the lenses of creating, performing, and responding, with a focus on acting. Public performances during and after school may be required to meet course objectives. Prerequisite: Attainment of outcomes for HS Theatre 1 & 2, or permission of the instructor.					
Play Directing A/B	ART2105A/B	.5	FA CM	**Theatre 2 HS A/B, Stage Design A/B, Musical Theatre A/B, or permission of the instructor**	ϟ
Students in this course continue to build on the knowledge and skills learned in Theatre 1 & Theatre 2 through the lenses of creating, performing, and responding, with a focus on directing. Public performances during and after school may be required to meet course objectives. Prerequisite: Attainment of outcomes for HS Theatre 1 & 2, or permission of the instructor.					
IB Theatre 1 A/B	ART2126A/B	.5	FA CM IB	**Theatre 2, Stage Design, Musical Theatre, or permission of the instructor**	ϟ
IB Theatre 1 introduces students to theatre-making through inquiry, experimentation, and the exploration of performance and production roles in diverse cultural and historical contexts. Students develop skills as creators, performers, designers, and directors through collaborative experiences that build a foundation for independent research, creation, and performance.					
IB Theatre 2 A/B	ART2127A/B	.5	FA CM IB	**IB Theatre 1 A/B**	ϟ
IB Theatre 2 builds on foundational theatre-making skills as students complete IB Theatre 1 assessment tasks through research, performance, collaboration, and original creative work. Students develop a production proposal, investigate a global theatre tradition, and devise and present theatre for an audience while refining their artistic voice as theatre-makers and critical thinkers.					

VISUAL ART

VISUAL ART 2-D STUDIO	VISUAL ART 3-D STUDIO	DIGITAL ART	PHOTOGRAPHY
2-D Studio Art 1 2-D Studio Art 2 2-D Studio Art 3 **OR** AP 2-D Art & Design **OR** IB Art & Design 1 2-D Studio Art 4 **OR** AP Drawing **OR** IB Art & Design 2	Ceramics/Sculpture 1 Ceramics/Sculpture 2 Ceramics/Sculpture 3 **OR** AP 3-D Art & Design **OR** IB Art & Design 1 Ceramics/Sculpture 4 **OR** AP 3-D Art & Design **OR** IB Art & Design 2	Digital Art 1 Digital Art 2 Digital Art 3 **OR** IB Art & Design 1 Digital Art 4 **OR** AP 2-D Art & Design **OR** IB Art & Design 2	Photography 1 **OR** Darkroom Photography Photography 2 Photography 3 **OR** AP Photography **OR** IB Art & Design 1 Photography 4 **OR** AP Photography **OR** IB Art & Design 2
FASHION DESIGN & PRODUCTION	**FUNCTIONAL FINE ART & CRAFT**	**NON-PATHWAY COURSES**	**GRAPHIC ART & DESIGN**
Fashion Illustration 1 **OR** Fashion Production 1 Fashion Illustration 2 **OR** Fashion Production 2 Fashion Production 3 **OR** AP 2-D Art & Design **OR** IB Art & Design 1 Fashion Production 4 **OR** AP Drawing **OR** IB Art & Design 2	Functional Fine Art & Craft 1 Functional Fine Art & Craft 2 AP 3-D Art & Design **OR** AP 2-D Design **OR** IB Art & Design 1 AP 3-D Art & Design **OR** AP Drawing **OR** IB Art & Design 2	Foundations of Art & Culture Contemporary & Mixed Media 2 Drawing 2 Painting 2 Printmaking 2 Animation 2 Art History AP Art History	Graphic Art & Design 1 Graphic Art & Design 2 AP 3-D Art & Design **OR** AP 2-D Design **OR** IB Art & Design 1 AP 3-D Art & Design **OR** AP Drawing **OR** IB Art & Design 2
			IB ART & DESIGN
			IB Art & Design 1 IB Art & Design 2

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
2-D Studio Art 1 A/B	ART2042A/B	.5	FA		
Students will develop foundational observational drawing and rendering skills while exploring a diverse range of two-dimensional media, including painting, printmaking, and collage. By experimenting with formal qualities and compositional devices, students will engage in creative problem-solving to make aesthetic choices that communicate a compelling narrative. Finally, the course integrates artist statements, peer critiques, and the close reading of artworks as text to strengthen essential writing, academic language, and critical-thinking skills.					
2-D Studio Art 2 A/B	ART2031A/B	.5	FA CM	**2-D Studio Art 1 A/B**	ϟ
Students continue building a portfolio of artwork and an art journal. Personal style emerges through the selection of media, subject matter and art forms used to solve visual problems. Reading assignments, group critiques, and visuals are used to help students develop an aesthetic vocabulary and an appreciation for art as an expression of human experience.					
Painting 2 A/B	ART2043A/B	.5	FA CM	**2-D Studio Art 1 A/B**	ϟ
Students will deepen their study of composition, form, and color theory, applying these advanced concepts to the creation of original artworks across a variety of wet media and surfaces. The curriculum investigates historical and contemporary painting styles while addressing essential health and safety practices, eventually allowing students to specialize in a preferred medium such as watercolor, tempera, or acrylic. Throughout the course, students reinforce their critical-thinking and writing skills by documenting their artistic growth and process through regular journaling.					
Printmaking 2 A/B	ART2044A/B	.5	FA CM	**2-D Studio Art 1 A/B**	ϟ
Students will create original artwork by synthesizing conventional and contemporary printmaking processes, including relief, intaglio, and experimental techniques. By exploring diverse perceptions and historical contexts through their craft, students enhance their visual literacy and develop an empathetic understanding of global cultures. The course culminates in the refinement of academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of artworks as text.					
Animation 2 A/B	ART2061A/B	.5	FA CM	**1.0 credit in Studio or Digital Art**	ϟ
This course focuses on mastering traditional and contemporary techniques in two- and three-dimensional animation, emphasizing the integrated use of drawing, storyboarding, and design fundamentals. Students are challenged to synthesize complex concepts and skills to create original animations that foster empathetic awareness and a deep respect for diverse societal and cultural histories. The curriculum culminates in the development of academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of animated works as text.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Drawing 2	ART 2019 A/B	.5	FA CM	**2-D Studio Art 1 A/B**	ϟ
This course builds students' portfolios by refining observational drawing and rendering skills while they experiment with forms, composition, media, and concepts to express personal perceptions in original artwork. Students also strengthen critical thinking, writing, and academic language by analyzing how imagery shapes our view of the world, evaluating drawings on technical and aesthetic merit, and reading artworks as text through critiques and artist statements.					
Contemporary & Mixed Media 2	ART 2020 A/B	.5	FA CM	**2-D Studio Art 1 A/B**	ϟ
This course strengthens students' visual literacy and understanding of different perceptions as they create original artwork with both conventional and contemporary media, building empathy and respect for diversity across society, culture, and history. Students also develop writing, academic language, and critical-thinking skills through artist statements, critiques, and reading artworks as text.					
2-D Studio Art 3 A/B	ART2032A/B	.5	FA CM	**2.0 credits in 2-D Studio Art Pathway**	ϟ
Students will synthesize diverse media and techniques to cultivate a distinct personal style, culminating in a curated exhibition that justifies their specific aesthetic and thematic choices. By working within a collective studio environment, students learn to foster professional collegiality through the practice of giving and receiving constructive criticism. The course further refines academic language and critical-thinking skills through the creation of artist statements and the analytical close reading of artworks as text.					
2-D Studio Art 4 A/B	ART2033A/B	.5	FA CM	**2-D Studio Art 3A/B**	ϟ
Students will synthesize diverse media and techniques to cultivate a distinct personal style, culminating in a curated exhibition that justifies their specific aesthetic and thematic choices. By working within a collective studio environment, students learn to foster professional collegiality through the practice of giving and receiving constructive criticism. The course further refines academic language and critical-thinking skills through the creation of artist statements and the analytical close reading of artworks as text.					
Ceramics/Sculpture 1 A/B	ART2045A/B	.5	FA		
Students will explore a variety of three-dimensional artmaking processes, utilizing both ceramics and diverse contemporary sculpture media to create original works. Through the application of formal qualities and compositional devices, students develop creative problem-solving skills to make aesthetic choices that communicate a distinct narrative. The course further refines academic language and critical thinking through the development of artist statements, peer critiques, and the close reading of artworks as text.					
Ceramics/Sculpture 2 A/B	ART2046A/B	.5	FA CM	**Ceramics/Sculpture 1 A/B**	ϟ
This course emphasizes portfolio development by refining advanced three- dimensional artmaking processes and ceramics techniques to communicate personal perceptions through original sculpture. Students will analyze the global impact of visual imagery while developing critical-thinking skills by synthesizing the technical and aesthetic characteristics of their work. To round out their professional practice, students strengthen academic language and analytical skills through artist statements, peer critiques, and the close reading of artworks as text.					
Ceramics/Sculpture 3 A/B	ART2047A/B	.5	FA CM	**Ceramics/Sculpture 2 A/B**	ϟ
By studying the form, finish, and conceptual statements of contemporary potters and sculptors, students will create a series of works that reflect a cohesive source or theme. Participants will master the combination of hand-built and wheel-thrown clay forms to produce original pottery and sculpture that communicates deeply personal meaning. Technical growth is supported by rigorous health and safety reviews, while critical thinking and communication are reinforced through group critiques and reflective journaling.					
Ceramics/Sculpture 4 A/B	ART2048 A/ B	.5	FA CM	**Ceramics/Sculpture 3A/B**	ϟ
Students will synthesize advanced ceramic and sculpture techniques to develop a distinct personal voice, pursuing a rigorous artistic investigation that expresses their unique experiences and perceptions. By working in a collective studio environment, students foster professional collegiality through the essential practice of giving and receiving constructive criticism. The course concludes by refining academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the analytical close reading of artworks as text.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Digital Art 1 A/B	ART2069A/B	.5	FA		
This course explores digital hardware and software platforms that reflect contemporary practices and industry standards to prepare for college and career. Students use the computer as a tool to create rastor- and vector-based artworks while discussing ethical and safety issues in the use of digital media as a tool for visual communication. Students develop creative problem-solving and critical-thinking skills by using formal compositional devices to communicate narrative in digital artwork, while simultaneously refining academic language through artist statements, critiques, and the close reading of artworks as text.					
Digital Art 2 A/B	ART2070A/B	.5	FA CM	**Digital Art 1 A/B**	ϟ
This advanced course prepares students for college and career by mastering industry-standard digital platforms and experimenting with compositional structures to communicate personal perceptions through original works. Students will analyze the global influence of visual imagery while developing critical-thinking skills by synthesizing both the technical and aesthetic characteristics of digital media. The curriculum concludes by refining academic language and analytical skills through the creation of artist statements, peer critiques, and the close reading of digital artworks as text.					
Digital Art 3 A/B	ART2059A/B	.5	FA CM	**Digital Art 2 A/B or Animation 2 A/B**	ϟ
This investigative, performance-based course prepares students for college and career by mastering digital hardware and software platforms that reflect contemporary industry standards. Students will develop essential visual literacy by generating creative lines of inquiry that result in a professional portfolio of digital art and design products. Throughout the process, participants refine their academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the close reading of artworks as text.					
Digital Art 4 A/B	ART2060A/B	.5	FA CM	**Digital Art 3 A/B**	ϟ
This course prepares students for college and career by encouraging the refinement of personal voice through independent experimentation with industry-standard digital hardware and software. Students will initiate rigorous research and collaborative practices to complete a cohesive body of work that reflects their unique identity as both artist and designer. Furthermore, the curriculum strengthens academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of artworks as text.					
Functional Fine Art & Craft 1 A/B	ART2053A/B	.5	FA		
Students will explore a variety of traditional and contemporary materials to create functional fine art, examining how design and decoration communicate narrative and social significance. Through continuous practice and reflection, students develop superior craftsmanship while building essential personal traits like resilience, perseverance, and a growth mindset. The course integrates the development of academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the close reading of artworks as text.					
Functional Fine Art & Craft 2 A/B	ART2049A/B	.5	FA CM	**Functional Fine Art & Craft 1 A/B**	ϟ
Students will explore the intersection of functional fine art and craft by analyzing how cultural traditions and diverse materials—such as fiber, metal, and pottery—influence design and decoration. Through the continuous practice and refinement of their own functional works, students build essential craftsmanship while developing resilience, self-awareness, and a growth mindset. The course further strengthens academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of artworks as text.					
Graphic Art & Design 1 A/B	ART2050A/B	.5	FA		
In this course, students will use traditional and contemporary media to explore typography, iconography, illustration as methods of visual communication and creative problem-solving. Students will explore techniques to communicate visual representation, ideas, and narrative by creating and combining symbols, images and text. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of images as text.					
Graphic Art & Design 2 A/B	ART2051A/B	.5	FA CM	**Graphic Art & Design 1 A/B**	ϟ
In this course, students will expand upon traditional and contemporary media to explore methods of visual communication and creative problem-solving. Students will analyze how graphic art influences global responses to visual information while refining their own ability to navigate an increasingly visual contemporary age. To support their professional growth, students strengthen academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the close reading of artworks as text.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Fashion Illustration 1 A/B	ART2022A/B	.5	FA		
In this course, students will investigate society, culture, and history through fashion; focusing on realistic and stylized figure drawing and textile exploration. Students will develop a personal narrative by creating original garment designs, culminating in a themed fashion illustration portfolio supported by written artist statements and critiques.					
Fashion Illustration 2 A/B	ART2030A/B	.5	FA CM	**Fashion Illustration 1 A/B**	ϟ
This course analyzes how cultural traditions and materials across time and place influence design, challenging students to manipulate formal qualities to enhance their unique artistic perspective. By refining their illustration skills and conceptual approach, students will develop and present a professional collection that communicates their personal perceptions of fashion. Throughout the process, participants strengthen their critical thinking and academic language through the development of artist statements, peer critiques, and the close reading of artworks.					
Fashion Production 1 A/B	ART2023A/B	.5	FA		
After refining the fabrication skills and craftsmanship necessary for functional attire, students will present a cohesive collection of original garments. The course challenges designers to manipulate formal qualities and compositional devices to enhance their unique point of view while analyzing how global traditions and available materials shape fashion history. To support this creative process, students will strengthen their critical-thinking and academic language skills through artist statements, critiques, and the close reading of artworks as text.					
Fashion Production 2 A/B	ART2024A/B	.5	FA CM	**Fashion Production 1 A/B**	ϟ
After refining the fabrication skills and craftsmanship necessary for functional attire, students will present a cohesive collection of original garments. The course challenges designers to manipulate formal qualities and compositional devices to enhance their unique point of view while analyzing how global traditions and available materials shape fashion history. To support this creative process, students will strengthen their critical-thinking and academic language skills through artist statements, critiques, and the close reading of artworks as text.					
Fashion Production 3 A/B	ART2151A/B	.5	FA CM	**Fashion Production 2 A/B**	ϟ
To prepare for college and career, students will master garment fabrication techniques and industry-standard practices while developing digital literacy in an increasingly visual contemporary landscape. Students will generate creative lines of inquiry to produce a professional fashion portfolio, focusing on the preparation and presentation of original designs. The course concludes by refining academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the analytical close reading of garments as text.					
Fashion Production 4 A/B	ART2152A/B	.5	FA CM	**Fashion Production 3A/B**	ϟ
Students will synthesize advanced garment fabrication techniques to develop a distinct personal voice, culminating in a professional collection where they must justify curatorial choices that communicate specific meaning. By working in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Studio 3-D Exam, and it may be repeated once for credit.					
Darkroom Photography A/B	ART2037A/B	.5	FA		
Students will master the fundamentals of darkroom photography, including SLR camera operation and manual film processing, to create original black-and-white works. The curriculum emphasizes the use of formal qualities and compositional devices to make intentional aesthetic choices that communicate a clear narrative or theme. By the end of the course, students will present a curated collection of photographs supported by artist statements and critiques that refine their academic language and critical-thinking skills.					
Photography 1 A/B	ART2038A/B	.5	FA		
Students will explore the fundamentals of photography by utilizing industry-standard tools and techniques to master both traditional and contemporary practices in preparation for college and career. By manipulating formal qualities and compositional devices, designers will learn to make intentional aesthetic choices that communicate a specific theme or personal narrative through a curated collection of images. Finally, the course develops essential academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of photographs as text					
Photography 2 A/B	ART2039A/B	.5	FA CM	**Photography 1 A/B or Darkroom Photography A/B**	ϟ
This course emphasizes portfolio development by mastering digital technology and experimenting with traditional and contemporary photography to communicate personal perceptions through original works. Students will analyze how visual imagery influences our understanding of the world while synthesizing technical and aesthetic characteristics to evaluate and interpret photographs. To round out their professional practice, students develop critical-thinking and academic language skills through artist statements, critiques, and the close reading of artworks as text.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Photography 3 A/B	ART2034A/B	.5	FA CM	**Photography 2 A/B**	ϟ
This course prepares students for college and career by mastering digital and darkroom techniques that reflect contemporary industry standards and the growing importance of visual literacy. Students will develop a professional photography portfolio by generating creative lines of inquiry and solving complex visual problems. Through artist statements, critiques, and the close reading of photographs as text, students will further refine the critical-thinking and academic language skills necessary for modern communication.					
Photography 4 A/B	ART2035A/B	.5	FA CM	**Photography 3A/B**	ϟ
This course prepares students for college and career experiences in digital and/or darkroom photography by requiring students to communicate their personal voice through independent experimentation and refinement of photography tools that reflect contemporary practices and industry standards. Students will initiate research, practice, and collaboration towards the completion of a body of work that reflects their personal voice as a photographer. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of artworks as text.					
AP Drawing A/B	ART2062A/B	.5	FA CM AP	**3.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced drawing techniques and processes to develop a distinct personal style, culminating in a professional exhibition where they must justify curatorial choices that communicate specific meaning. By working in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP DrawingA/B DP	ART2065	.5	FA CM AP	**3.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced drawing techniques and processes to develop a distinct personal style, culminating in a professional exhibition where they must justify curatorial choices that communicate specific meaning. By working in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP Art History A/B	ART2054A/B	.5	FA CM AP		ϟ
AP Art History explores the development of art across cultures and time periods from prehistory to the present through observation, discussion, reading, and research. Students strengthen writing, academic language, and critical thinking skills by analyzing works of art, examining connections among artistic traditions and styles, and using evidence to support interpretations of meaning.					
AP 2D Art & Design A/B	ART2064A/B	.5	FA CM AP	**2.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP 2D Art & Design DP	ART2065	1.0	FA CM AP (DP)	**2.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP 3D Art & Design A/B	ART2066A/B	.5	FA CM AP	**2.0 credits in Ceramics/ Sculpture or Functional Fine Art & Craft**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP 3D Art & Design DP	ART2067	1.0	FA CM AP (DP)	**2.0 credits in Ceramics/ Sculpture or Functional Fine Art & Craft**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					

AP Photography A/B	ART2040A/B	.5	FA CM AP	**Photography 2 A/B**	ϟ
This individualized program focuses on art projects that demonstrate the competencies expected of AP art applicants, as identified by the College Board. Students assemble portfolios to meet the submission requirements for the AP Exam. This course may be repeated once for credit.					

AP Photography A/B DP	ART2041A/B	1.0	FA CM AP (DP)	**Photography 2 A/B**	ϟ
This individualized program focuses on art projects that demonstrate the competencies expected of AP art applicants, as identified by the College Board. Students assemble portfolios to meet the submission requirements for the AP Exam. This course may be repeated once for credit.					

IB Film Studies 1 A/B	ART2110A/B	.5	FA CM IB		ϟ
IB Film 1 introduces students to film analysis and production through the study of film language, cinematic techniques, and global cinema traditions. Students develop skills in interpreting how meaning is created in film while exploring a range of production roles, including camera, editing, and sound, through guided practice and creative projects.					

IB Film Studies 2 A/B	ART2111A/B	.5	FA CM IB	**IB Film Studies 1 A/B**	ϟ
Semester A: IB Film 2 builds on foundational film analysis and production skills as students complete IB Film assessment tasks and create polished film projects. Through comparative study, critical analysis, and portfolio development, students refine their artistic voice and demonstrate their growth as filmmakers through independent creative work.					

IB Art Design 1 A/B	ART2018A/B	.5	FA CM IB	**2.0 credits in Visual Arts or instructor permission**	ϟ
IB Art Design develops students' aesthetic, imaginative, and creative abilities through visual awareness, multicultural expression, and the study of historical and contemporary artistic influences. Students maintain an expressive visual and written journal that documents the connection between their personal research and studio work as part of the IB assessment requirements.					

IB Art Design 2 A/B	ART2021A/B	.5	FA CM IB	**IB Visual Arts 1 A/B**	ϟ
IB Art Design 2 continues to develop students' aesthetic, imaginative, and creative abilities through visual awareness and multicultural expression in studio work. Students expand and refine the verbal and visual journals begun in IB Art Design 1 while completing a portfolio that fulfills the requirements of the IB Visual Arts assessment.					



WORLD LANGUAGES

Two credits in the same world language, which may include American Sign Language, may be used to complete Option 1 of elective credits required for graduation. If students select a world language to fulfill the Maryland diploma requirements, students must complete 2 credits in the **same** language.

The goal of the World Languages program is to prepare students to be linguistically and culturally competent in languages other than English. The ability to communicate in a culturally appropriate manner with speakers of other languages is the key to success in the increasingly diverse global community of the 21st century. As students develop proficiency in world languages and an understanding of the underlying values and beliefs of other cultures, they gain the skills that are essential to meaningful communication. World Languages courses must be taken in sequential order. The prerequisite for all courses, except 1A, is either successful completion of the preceding course or a local placement test.

MARYLAND SEAL OF BILITERACY

The Maryland Seal of Biliteracy is an award from the Maryland State Department of Education (MSDE), given by participating school systems, that recognizes a student's high level of proficiency in listening, speaking, reading, and writing in one or more languages in addition to English.

High school graduates who can function in two or more languages are equipped with the knowledge and skills to participate successfully in college, careers, and a diverse 21st-century society. The Maryland State Seal of Biliteracy is established to recognize and reward excellence in language learning as measured by rigorous proficiency assessments.

To receive a Maryland Seal of Biliteracy, a student must:

1. Meet one of the assessment requirements from the MSDE's approved list of English language arts/literacy assessments for the Maryland Seal of Biliteracy; and
2. Meet one of the assessment requirements from the MSDE's approved list of world language assessments for the Maryland Seal of Biliteracy.

Link to the MSDE's approved list of English language arts/literacy assessments for the Maryland Seal of Biliteracy:
https://drive.google.com/file/d/1yxAjGkDlxn3wxt8XIZuRkr_8y_3W4d4r/view?usp=drive_link

Link to the MSDE's approved list of world language assessments for the Maryland Seal of Biliteracy:
https://drive.google.com/file/d/13vRImU_5MgEU4U9IPZA7MYgywuszb4h7/view?usp=drive_link

World Languages Level 1

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Arabic 1	WLG2011 A/B	.5	NCAA		★
Arabic 1 introduces students to the Arabic language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of Arabic-speaking communities around the world.					
Chinese 1	WLG2021A/B	.5	NCAA		★
Chinese 1 introduces students to the Chinese language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of Chinese-speaking communities around the world.					
French 1	WLG2041A/B	.5	NCAA		★
French 1 introduces students to the French language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of French-speaking communities.					
Italian 1	WLG2071A/B	.5	NCAA		★
Italian 1 introduces students to the Italian language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of Italian-speaking communities around the world.					
Japanese 1	WLG2081A/B	.5	NCAA		★
Japanese 1 introduces students to the Japanese language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of Japanese-speaking communities around the d.					
Spanish 1	WLG2131A/B	.5	NCAA		★
Spanish 1 introduces students to the Spanish language and culture. Students develop novice-level skills in reading, writing, speaking, and listening. The course also explores the products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 2

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Arabic 2	WLG2012A/B	.5	NCAA	**Level 1 of the language**	★
Arabic 2 expands students' proficiency in the Arabic Language and Culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Arabic-speaking communities around the world.					
Chinese 2	WLG2022A/B	.5	NCAA	**Level 1 of the language**	★
Chinese 2 expands students' proficiency in the Chinese language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Chinese-speaking communities around the world.					
French 2	WLG2042A/B	.5	NCAA	**Level 1 of the language**	★
French 2 expands students' proficiency in the French language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of French-speaking communities around the world.					
Italian 2	WLG2072A/B	.5	NCAA	**Level 1 of the language**	★
Italian 2 expands students' proficiency in the Italian language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Italian-speaking communities around the world.					
Japanese 2	WLG2082A/B	.5	NCAA	**Level 1 of the language**	★
Japanese 2 expands students' proficiency in the Japanese language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Japanese-speaking communities around the world.					
Spanish 2	WLG2132A/B	.5	NCAA	**Level 1 of the language**	★
Spanish 2 expands students' proficiency in the Spanish language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 3

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors Arabic 3	WLG2015A/B	.5	CM NCAA (AL)	**Level 2 of the language**	↗
Honors Arabic 3 builds students' proficiency in Arabic through more complex communication tasks. Students build their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Arabic-speaking communities around the world.					
Honors Chinese 3	WLG2028A/B	.5	CM NCAA (H)	**Level 2 of the language**	↗
Honors Chinese 3 builds students' proficiency in Chinese through more complex communication tasks. Students build their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					
Honors French 3	WLG2048A/B	.5	CM NCAA (H)	**Level 2 of the language**	↗
Honors French 3 builds students' proficiency in French through more complex communication tasks. Students build their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of French-speaking communities around the world.					
Honors Italian 3	WLG2076A/B	.5	CM NCAA (H)	**Level 2 of the language**	↗
Honors Italian 3 builds students' proficiency in Italian through more complex communication tasks. Students build their intermediate-level skills in reading, writing, and listening while deepening their understanding of the products, practices, and perspectives of Italian-speaking communities around the world.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors Japanese 3	WLG2088A/B	.5	CM NCAA (H)	**Level 2 of the language**	↗
Honors Japanese 3 builds students' proficiency in Japanese through more complex communication tasks. Students build their intermediate-level skills in reading, writing, and listening while deepening their understanding of the products, practices, and perspectives of Japanese-speaking communities around the world.					

Honors Spanish 3	WLG2138A/B	.5	CM NCAA (H)	**Level 2 of the language**	↗
Honors Spanish 3 builds students' proficiency in Spanish through more complex communication tasks. Students build their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 4

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Arabic 4 Upper Level	WLG2016A/B	.5	CM NCAA (H)	**Level 3 of the language**	ϟ
Arabic 4 Upper Level advances students' proficiency in Arabic across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Arabic-speaking communities around the world.					

Chinese 4 Upper Level	WLG2293A/B	.5	CM NCAA (H)	**Level 3 of the language**	ϟ
Chinese 4 Upper Level advances students' proficiency in Chinese across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					

French 4 Upper Level	WLG2295A/B	.5	CM NCAA (H)	**Level 3 of the language**	ϟ
French 4 Upper Level advances students' proficiency in French across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of French-speaking communities around the world.					

Italian 4 Upper Level	WLG2079A/B	.5		**Italian 3A/B**	ϟ
Italian 4 Upper Level advances students' proficiency in Italian across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Italian-speaking communities around the world.					

Japanese 4 Upper Level	WLG2091A/B	.5	CM NCAA (H)	**Level 3 of the language**	ϟ
Japanese 4 Upper Level advances students' proficiency in Japanese across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives Japanese-speaking communities around the world.					

Spanish 4 Upper Level	WLG2154A/B	.5	CM NCAA (H)	**Level 3 of the language**	ϟ
Spanish 4 Upper Level advances students' proficiency in Spanish across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 5

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Chinese 5 Upper Level	WLG2292A/B	.5	CM NCAA (AL)	**Level 4 of the language**	ϟ
Chinese 5 Upper Level strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while examining the diverse products, practices, and perspectives of Chinese-speaking communities around the world.					

French 5 Upper Level	WLG2296A/B	.5	CM NCAA (AL)	**Level 4 of the language**	ϟ
French 5 Upper Level strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while examining the diverse products, practices, and perspectives of French-speaking communities around the world.					

World Languages Level 5 (Cont.)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Italian 5 Upper Level	WLG2080A/B	.5		**Level 4 of the language**	ϟ
Italian 5 Upper Level strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while examining the diverse products, practices, perspectives of Italian-speaking communities around the world.					
Japanese 5 Upper Level	WLG2092A/B	.5	CM NCAA (AL)	**Level 4 of the language**	ϟ
Japanese 5 Upper Level strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while examining diverse products, practices, and perspectives of Japanese-speaking communities around the world.					
Spanish 5 Upper Level	WLG2159A/B	.5	CM NCAA (AL)	**Level 4 of the language**	ϟ
Spanish 5 Upper Level strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while experiencing the diverse products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 6

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Chinese 6 Upper Level	WLG2293A/B	.5	CM NCAA (AL)	**Level 5 of the language**	ϟ
Chinese 6 Upper Level develops students' advanced-level proficiency in reading, writing, speaking, and listening. Students engage with a variety of authentic materials while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					
French 6 Upper Level	WLG2297A/B	.5	CM NCAA (AL)	**Level 5 of the language**	ϟ
French 6 Upper Level develops students' advanced-level proficiency in reading, writing, speaking and listening. Students engage with a variety of authentic materials while deepening their understanding of the products, practices, and perspectives of French-speaking communities around the world.					
Japanese 6 Upper Level	WLG2093A/B	.5	CM NCAA (AL)	**Level 5 of the language**	ϟ
Japanese 6 develops students' advanced-level proficiency in reading, writing, speaking, and listening. Students engage with a variety of authentic materials while deepening their understanding of the products, practices, and perspectives of Japanese-speaking communities around the world.					
Spanish 6 Upper Level	WLG2160A/B	.5	CM NCAA (AL)	**Level 5 of the language**	ϟ
Spanish 6 Upper Level develops students' advanced-level proficiency in reading, writing, speech and listening. Students engage with a variety of authentic materials while deepening understanding of the products, practices, and perspectives of Spanish-speaking communities around the world.					

World Languages Level 7

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Chinese 7 Upper Level	WLG2027	.5		**Chinese 6A/B or AP Chinese Language and Culture**	ϟ
Chinese 7 strengthens students' advanced-level proficiency in reading, writing, speaking, and listening and deepens their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					
French 7 Upper Level	WLG2298A/B	.5		**French 6 Upper Level or AP French Language and Culture**	ϟ
French 7 strengthens students' advanced-level proficiency in reading, writing, speaking, and listening and deepens their understanding of the products, practices, and perspectives of French-speaking communities around the world.					
Japanese 7 Upper Level	WLG2094A/B	.5			ϟ
Japanese 7 strengthens students' advanced-level proficiency in reading, writing, speaking, and listening and deepen their understanding of the products, practices, and perspectives of Japanese-speaking communities around the world.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Spanish 7 Upper Level	WLG2161A/B	.5		**Spanish 6A/B or AP Spanish Language and Culture or AP Spanish Literature and Culture**	ϟ
Spanish 7 strengthens students' advanced-level proficiency in reading, writing, speaking, and listening and deepens their understanding of the products, practices, and perspectives of Spanish-speaking communities around the world.					

AP World Languages

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP Chinese Language and Culture	WLG2038A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Chinese Language and Culture is an intermediate college-level course that develops proficiency in Mandarin Chinese through listening, speaking, reading, and writing. Students explore the cultures of the Chinese-speaking world through real-world texts, themes, and contexts while engaging in interpretive, interpersonal, and presentational communication in preparation for the AP Examination.					
AP French Language and Culture	WLG2057A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP French Language and Culture is an intermediate college-level course that develops proficiency in French through listening, speaking, reading, and writing. Students explore the cultures of the French-speaking world through real-world texts, themes, and contexts while engaging in interpretive, interpersonal, and presentational communication in preparation for the AP Examination.					
AP Italian Language and Culture	WLG2078A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Italian Language and Culture is an intermediate college-level course that develops proficiency in Italian through listening, speaking, reading, and writing. Students explore the cultures of the Italian-speaking world through real-world texts, themes, and contexts while engaging in interpretive, interpersonal, and presentational communication in preparation for the AP Examination.					
AP Japanese Language and Culture	WLG2090A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Japanese Language and Culture is an intermediate college-level course that develops proficiency in Japanese through listening, speaking, reading, and writing. Students explore the cultures of the French-speaking world through real-world texts, themes, and contexts while engaging in interpretive, interpersonal, and presentational communication in preparation for the AP Examination.					
AP Spanish Language and Culture	WLG2152A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Spanish Language and Culture is an intermediate college-level course that develops proficiency in Spanish through listening, speaking, reading, and writing. Students explore the cultures of the Spanish-speaking world through real-world texts, themes, and contexts while engaging in interpretive, interpersonal, and presentational communication in preparation for the AP Examination.					
AP Spanish Literature and Culture	WLG2153A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Spanish Literature and Culture is an introductory college-level course that explores Spanish-language literature and culture through the study of poetry, prose, drama, and other literary works. Students analyze themes, literary techniques, and cultural perspectives while developing interpretive, analytical, and presentational communication skills in Spanish. The course prepares students for the AP Examination and further study of the Spanish language, literature, and culture.					
AP Latin	WLG2018A/B	.5	CM AP NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
AP Latin is an intermediate college-level course that explores Latin literature through the study of selections from Vergil's Aeneid and Pliny the Younger's Letters. Students examine themes, literary techniques, and cultural perspectives while developing critical, historical, and analytical skills in preparation for the AP Examination.					

Spanish for Spanish Speakers

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Spanish for Spanish Speakers 1	WLG2155A/B	.5		**Successful completion of the preceding course or a local placement test**	★
Designed for students who already speak Spanish, this introductory course builds speaking, reading, and writing skills across social and academic contexts. Students explore the history, culture, and perspectives of the Spanish-speaking world to establish linguistic and cultural knowledge.					
Spanish for Spanish Speakers 2	WLG2156A/B	.5	NCAA	**Successful completion of the preceding course or a local placement test**	★
Designed for students who already speak Spanish, this course further develops students' reading, writing, speaking, and listening skills across social and academic contexts. Students analyze the history, culture, and perspectives of the Spanish-speaking world to expand their linguistic and cultural knowledge.					
Spanish for Spanish Speakers 3	WLG2157A/B	.5	CM NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
Designed for students who already speak Spanish, this course further advances students' reading, writing, speaking, and listening skills across social and academic contexts. Students critically evaluate the history, culture, and perspectives of the Spanish-speaking world to deepen their linguistic and cultural knowledge.					
Spanish for Spanish Speakers 4	WLG2158A/B	.5	CM NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
Designed for students who already speak Spanish, this course further refines students' reading, writing, speaking, and listening skills across social and academic contexts. Students synthesize and apply the history, culture, and perspectives of the Spanish- speaking world to broaden their linguistic and cultural knowledge.					

Latin

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Latin 1	WLG2101A/B	.5	NCAA		★
Latin 1 introduces students to Latin vocabulary, grammar, and basic translation skills while exploring Roman history, culture, and daily life through adapted classical texts.					
Latin 2	WLG2102A/B	.5	NCAA	**Successful completion of the preceding course or a local placement test**	★
Latin 2 expands students' knowledge of Latin vocabulary, grammar, and translation as they engage with increasingly complex texts and deepen their understanding of Roman history, culture, and literature.					
Honors Latin 3	WLG2106A/B	.5	CM NCAA	**Successful completion of the preceding course or a local placement test**	↗
Honors Latin 3A strengthens students' proficiency in reading and translating Latin while introducing selections from major Roman authors and examining the historical and cultural contexts of classical literature.					
Latin 4 Upper Level	WLG2109A/B	.5	CM NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
Honors Latin 4 advances students' skills in Latin interpretation and translation through the study of authentic works by major Roman authors, fostering a deeper understanding of Roman culture, history, and literary traditions.					

American Sign Language

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
American Sign Language 1	WLG2001A/B	.5	NCAA		★
American Sign Language 1, students communicate about daily life with basic vocabulary and simple grammatical structures. They explore the cultural and linguistic heritage of the Deaf community and its influence.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
American Sign Language 2	WLG2002A/B	.5	NCAA	**Successful completion of the preceding course or a local placement test**	★
In American Sign Language 2, students develop greater proficiency in signing, receptive understanding, and conversational skills in everyday situations. The course also continues exploration of Deaf culture, traditions, and the linguistic heritage of the Deaf community.					

Honors American Sign Language 3A/B	WLG2003A/B	.5	CM NCAA	**American Sign Language 2 A/B**	↗
In Honors American Sign Language 3, students strengthen their ability to communicate in a variety of real-world and interpretive contexts with greater fluency and accuracy. The course also deepens exploration of Deaf culture, community perspectives, and the linguistic heritage of Deaf individuals.					

American Sign Language 4 Upper Level	WLG2005A/B	.5	CM NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
In American Sign Language 4A, students refine their proficiency by communicating about a variety of topics that move from concrete to more abstract concepts while expanding vocabulary and idiomatic expressions. The course also explores the cultural and linguistic heritage of the Deaf community and its influence.					

International Baccalaureate World Languages

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Arabic 3	WLG2201A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Arabic 3 introduces students to classical Arabic language and literature. Students study language structure while analyzing texts within their cultural and historical context. The course emphasizes translation, interpretation, and connections between literature and society.					

IB Arabic 4	WLG2202A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Arabic 4 continues the study of classical Arabic language and literature. Students deepen their understanding of texts through analysis of cultural and historical themes. The course emphasizes interpretation, application of knowledge, and connections to broader contexts.					

IB Chinese 3	WLG2203A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Chinese 3 develops students' proficiency in reading, writing, speaking, and listening in Chinese. Students improve accuracy and fluency while communicating in real-world texts. The course emphasizes understanding and interaction with native speakers.					

IB Chinese 4	WLG2204A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Chinese 4 continues to build communication skills in Chinese across multiple contexts. Students strengthen fluency and comprehension through speaking and writing activities. The course emphasizes clear and effective communication in a second language.					

IB Chinese 5	WLG2205A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Chinese 5 further develops advanced communication skills in Chinese. Students engage in extended speaking and writing to improve fluency and accuracy. The course emphasizes munication at a higher level of independence.					

IB Chinese 6	WLG2206A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Chinese 6 prepares students for IB Language B assessment at the standard or higher level. Students demonstrate fluency in communication and comprehension of complex language. The course emphasizes advanced language use and cultural understanding.					

International Baccalaureate World Languages (Cont.)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB French 4	WLG2208A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB French 4 develops students' communication skills in French across speaking, listening, reading, and writing. Students improve fluency and accuracy through real-world communication tasks. The course emphasizes understanding and interaction with native speakers..					
IB French 5	WLG2209A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB French 5 strengthens language proficiency through extended communication and analysis. Students develop confidence in using French across a variety of contexts. The course emphasizes accuracy, fluency, and cultural understanding.					
IB French 6	WLG2210A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB French 6 prepares students for IB Language B assessment. Students demonstrate advanced communication skills and comprehension. The course emphasizes fluency, accuracy, and cultural awareness.					
IB French 7	WLG2211A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB French 7 finalizes preparation for IB Language B assessment. Students communicate effectively across complex topics and contexts. The course emphasizes independence and advanced language use.					
IB Japanese 4	WLG2221A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Japanese 4 develops communication skills in reading, writing, speaking, and listening. Students improve fluency and accuracy in real world contexts. The course emphasizes extraction and comprehension of native language use.					
IB Spanish 4	WLG2226A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Spanish 4 develops communication skills across speaking, listening, reading, and writing. Students improve fluency and comprehension through real-world language use. The course emphasizes interaction and cultural understanding.					
IB Spanish 5	WLG2227A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Spanish 5 expands students' ability to communicate effectively in Spanish. Students engage in more complex language tasks and contexts. The course emphasizes fluency accuracy.					
IB Spanish 6	WLG2228A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Spanish 6 prepares students for IB Language B assessment. Students demonstrate understanding and communication in complex contexts. The course emphasizes advanced language skills and cultural awareness.					
IB Spanish 7	WLG2229A/B	.5	CM IB NCAA	**Successful completion of the preceding course or a local placement test**	ϟ
IB Spanish 7 finalizes preparation for IB Language B assessment. Students demonstrate fluency and independence in communication. The course emphasizes advanced proficiency and application.					

CAREER CONNECTED LEARNING

Career Connected Learning electives offer students the opportunity to earn high school credit through internship, apprenticeship, school based enterprises and employer-driven capstone project experiences. The experience requires a work plan and instructional course work.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Career Connected Learning Internship 1 DP	CCL2000	1	CM-AL		ϟ
This course requires 125 hours of work in a structured authentic workplace experience (paid or unpaid) aligned with the student's career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Internship 2 DP	CCL2001	1	CM-AL	**Career Connected Learning Internship 1 DP**	ϟ
This course requires 125 hours of work in a structured authentic workplace experience (paid or unpaid) aligned with the student's career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Internship 3 DP	CCL2002	1	CM-AL	**Career Connected Learning Internship 2 DP**	ϟ
This course requires 125 hours of work in a structured authentic workplace experience (paid or unpaid) aligned with the student's career interests and educational pathway.					
Career Connected Learning Internship 4 DP	CCL2003	1	CM-AL	**Career Connected Learning Internship 3 DP**	ϟ
This course requires 125 hours of work in a structured authentic workplace experience (paid or unpaid) aligned with the student's career interests and educational pathway.					
Career Connected Learning Apprenticeship 1 DP	CCL2004	1	CM-AL		ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Apprenticeship 2 DP	CCL2005	1	CM-AL	**Career Connected Learning Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Apprenticeship 3 DP	CCL2006	1	CM-AL CM-AL	**Career Connected Learning Apprenticeship 2 DP**	ϟ
This course builds upon the apprenticeship experience through 125 hours of advanced technical training and increased workplace responsibility in a registered or youth apprenticeship with an Industry Recognized Credential.					
Career Connected Learning Apprenticeship 4 DP	CCL2007	1		**Career Connected Learning Apprenticeship 3 DP**	ϟ
This course builds upon the apprenticeship experience through 125 hours of advanced technical training and increased workplace responsibility in a registered or youth apprenticeship with an Industry Recognized Credential.					
Career Connected Learning School Based Enterprises 1 DP	CCL2008	1	CM-AL		ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic State-Approved requirements of the experience.					
Career Connected Learning School Based Enterprises 2 DP	CCL2009	1	CM-AL	**Career Connected Learning School Based Enterprises 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic State-Approved requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Career Connected Learning School Based Enterprises 3 DP	CCL2010	1	CM-AL	**Career Connected Learning School Based Enterprises 2 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based State-Approved business operations.					
Career Connected Learning School Based Enterprises 4 DP	CCL2011	1	CM-AL	**Career Connected Learning School Based Enterprises 3 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations.					
Career Connected Learning Employer-Driven Capstone Project 1 DP	CCL2012	1	CM-AL		ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presention of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Employer-Driven Capstone Project 2 DP	CCL2013	1	CM-AL	**Career Connected Learning Employer-Driven Capstone Project 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presention of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Career Connected Learning Employer-Driven Capstone Project 3 DP	CCL2014	1	CM-AL	**Career Connected Learning Employer-Driven Capstone Project 2 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presention of a culminating project.					
Career Connected Learning Employer-Driven Capstone Project 4 DP	CCL2015	1	CM-AL	**Career Connected Learning Employer-Driven Capstone Project 3 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presention of a culminating project.					
Educational Support Aide	CCL2016				
This course is a non-credit opportunity for students to engage in meaningful activities that support the school community for 1 period per day.					



INTERDISCIPLINARY AND RESEARCH COURSES

Interdisciplinary and Research Courses are academic courses that provide students with a combination of academic and practical skills. The emphasis is on research and thinking skills as a culminating course that allows students to apply and take the skills to transfer and apply in a range of situations.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
IB Personal and Professional Skills 1 A/B	ITR 2002A/B	.5	CM IB	**For IB Career Programme Candidate Students only**	ϟ
IB Personal and Professional Skills (PPS) is a required component of the International Baccalaureate Career-related Programme that helps students develop the attitudes, skills, and strategies needed for personal growth, professional success, and lifelong learning. Through connections to career-related studies and real-world experiences, students strengthen interpersonal skills, intercultural understanding, ethical decision-making, and effective communication.					
IB Personal and Professional Skills 2 A/B	ITR 2002 C/D	.5	CM IB	**For IB Career Programme Candidate Students only**	ϟ
IB Personal and Professional Skills (PPS) is a required component of the International Baccalaureate Career-related Programme that helps students develop the attitudes, skills, and strategies needed for personal growth, professional success, and lifelong learning. Through connections to career-related studies and real-world experiences, students strengthen interpersonal skills, intercultural understanding, ethical decision-making, and effective communication.					
IB Theory of Knowledge 1 A/B	SOC2015	.5	CM IB NCAA	**For IB Diploma Programme Candidate students only**	ϟ
IB Theory of Knowledge 1 introduces students to the sources and systems of knowledge. Students examine how language, reasoning, and different disciplines shape what we know. The course builds skills in critical thinking and reflection on knowledge and truth.					
IB Theory of Knowledge 2 A/B	SOC2016	.5	CM IB NCAA	**For IB Diploma Programme Candidate students only**	ϟ
IB Theory of Knowledge 2 extends understanding of how knowledge is constructed and evaluated. Students explore history, value judgments, and the relationships between belief, opinion, and truth. The course emphasizes deeper reflection on real-world knowledge questions.					
AP Seminar A/B	NSS2023A/B	.5	CM AP		ϟ
AP Seminar is an interdisciplinary course in which students explore complex academic and real-world issues through multiple perspectives and cross-curricular lenses. Students analyze varied sources, evaluate evidence, conduct research, and develop evidence-based arguments that they communicate through writing, discussion, and individual and team presentations.					
AP Research A/B	NSS2024A/B	.5	CM AP	**AP Seminar or English 10 AP Seminar**	ϟ
AP Research is a college-level course that provides students with the opportunity to design, conduct, analyze, and present an original research investigation on a topic of personal interest. Students develop advanced research, critical thinking, academic writing, and presentation skills as they evaluate sources, apply research methodologies, and communicate evidence-based conclusions.					
English 10 AP Seminar	ENG2092A/B	.5	CM AP	**English 9**	ϟ
English 10: AP Seminar integrates English 10 standards with college-level reading, writing, and research through the exploration of contemporary issues and a wide range of texts. Students develop critical thinking, collaboration, and academic research skills as they analyze evidence, construct arguments, and communicate their ideas through written essays and individual and team presentations.					

ALTERNATIVE LEARNING OUTCOMES (ALO)

Designed for students receiving special education services who, with parent consent, are working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, these courses provide modified instruction scaffolded to each student's instructional level and aligned with Alternate Academic Achievement Standards (AAAS). Students participate in the Alternate Assessment (AA) during assessed years. These Alternate Learning Outcomes (ALO) courses support progress toward a Maryland Certificate of Program Completion rather than earning credit toward a high school diploma.

English

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO English 9	ENG2009	This certificate course is designed for students who have been found eligible through an IEP meeting for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and Essential Elements. Students engage with modified grade-level English language arts content through appropriately adapted literary and informational texts and instructional materials, to develop students' reading, writing, listening and communication skills.
ALO English 10	ENG2010	
ALO English 11	ENG2011	
ALO English 12	ENG2012	

Math

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO Math 9	MAT2071	Designed for students working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, this course focuses on individualized mathematics goals. Modifications are made to the mathematics curriculum to align with Alternate Academic Achievement Standards (AAAS). Students take the Dynamic Learning Maps (DLM) Mathematics alternate assessment in grade 11.
ALO Math 10	MAT2072	
ALO Math 11	MAT2073	
ALO Math 12	MAT2074	

Financial Literacy

COURSE TITLE	COURSE CODE
ALO Consumer Math	MAT2076
This certificate course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. Modified Financial Mathematics develops mathematical decision-making and financial literacy through applications involving budgeting and savings.	

Science

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO Science 9	SCI2091	Designed for students working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, this course covers Earth and space systems, life science, and physical science. Modifications are made to the science curriculum to align with Alternate Academic Achievement Standards (AAAS). Students take the Dynamic Learning Maps (DLM) Science alternate assessment in grade 11.
ALO Science 10	SCI2092	
ALO Science 11	SCI2093	
ALO Science 12	SCI2094	
ALO Science 12 Plus	SCI2095	

Social Studies

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO Social Studies 9	SOC2009	Designed for students working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, this course covers American Government, U.S. History, and World History, emphasizing practical application in daily living and employment. Modifications are made to the social studies curriculum to align with Alternate Academic Achievement Standards (AAAS).
ALO Social Studies 10	SOC2010	
ALO Social Studies 11	SOC2011	
ALO Social Studies 12	SOC2012	
ALO Social Studies 12 Plus	SOC2013	

Health/Physical Education

COURSE TITLE	COURSE CODE
ALO HS Physical Education	HPE2041
ALO HS Physical Education provides students with disabilities meaningful access to the high school physical education curriculum within their home school setting through individualized accommodations, modifications, and instructional supports. Students develop movement skills, fitness knowledge, confidence, and independence through learning experiences designed to promote participation, success, and lifelong physical activity.	

Art

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO Art 9	ART2025	Designed for students working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, this course explores broad concepts in art across multiple grade levels. Modifications are made to the curriculum to align with Alternate Academic Achievement Standards (AAAS).
ALO Art 10	ART2026	
ALO Art 11	ART2027	
ALO Art 12	ART2028	

Culinary Essentials

COURSE TITLE	COURSE CODE	COURSE DESCRIPTION
ALO Culinary Essentials 9	CHT2020	Designed for students working toward Alternate Learning Outcomes (ALO) and a Maryland Certificate of Program Completion, this course introduces the basics of cooking, food preparation, and kitchen operations. Students learn fundamental skills such as food safety and sanitation, proper use of kitchen tools and equipment, basic cooking techniques, and simple meal preparation. Modifications are made to the curriculum to align with Alternate Academic Achievement Standards (AAAS).
ALO Culinary Essentials 10	CHT2020	
ALO Culinary Essentials 11	CHT2022	
ALO Culinary Essentials 12	CHT2023	

Life Skills

COURSE TITLE	COURSE CODE
ALO HS Life Skills	EDU2001
This course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. This course will help students develop communication, self-advocacy and social skills to build independence at home and in the community.	

ALO Employment Skill Dev.	EDU2002
This course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. This course will help students match their interests and aptitudes to career options with a focus on using employment information effectively, acquiring and improving job-seeking and interview skills, composing job applications and resumes, and learning the skills needed to remain in and advance within the workplace. Course content may also include consumer education and money management topics.	

ALO Intro Computers	ITC2026
This course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. Students gain practical, hands-on computer skills through structured and engaging daily activities. Utilizing interactive technology and modern software, students learn to navigate digital tools, streamline everyday tasks, and apply critical thinking to solve real-world problems.	

ALO On the Job Training	NSS2007
This course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. This course is used for students who are going off-site for a hands-on work-based experience.	
ALO HS Elective	NSS2048
This course is designed for students who have been found eligible for instruction and assessment aligned to the alternate academic achievement standards (AAAS) and alternate learning outcomes (ALO) through an IEP meeting. This course is a generic elective course code for students who are taking a general elective (NOT an ARTxxxx course) not for credit.	

ALO HS Tech Ed	ENR2037
This modified technology certificate of completion course introduces students on the AA-AAAS pathway to basic engineering design and technological systems. Derived from general education standards but reduced in depth, breadth, and complexity to match individual instructional levels, students use design-thinking strategies and TinkerCAD for entry-level computer-aided design challenges.	

CTE PROGRAMS OF STUDY

Career and Technical Education (CTE) Programs of Study (POS) are designed to prepare high school students for the 21st century global economy and its rapidly changing workforce needs. All programs are aligned to academic and technical skill standards to ensure students are adequately prepared for college and careers. Many POS provide opportunities for students to earn industry recognized credentials, college credit, and/or career-connected learning experiences through internships or apprenticeships. MCPS high schools offer an extensive array of POSs for students. These state-approved programs satisfy the elective option graduation requirement and are designed to help students acquire the specialized knowledge, skills, attitude and work habits required for postsecondary education and employment.

Completion of a state-approved program of study (POS) may be used to complete Option 2 of elective credits required for graduation.

POS IN ADVANCED MANUFACTURING

AVAILABLE AT BETHESDA-CHEVY CHASE, CLARKSBURG, COL. ZADOK MAGRUDER, PAINT BRANCH, POOLESVILLE, QUINCE ORCHARD, ROCKVILLE, SENECA VALLEY, SHERWOOD, SPRINGBROOK, WATKINS MILL, WHEATON, AND WALT WHITMAN

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Advanced Manufacturing	9-12	Certified Onshape Professional

PROGRAM PURPOSE

The Engineering Program of Study prepares students through hands-on experiences with engineering concepts and real-world projects, helping them decide whether to pursue engineering in college, technical school, or enter the workforce directly. These programs bridge classroom theory with practical skills like CAD, robotics, and problem-solving while making engineering accessible to students who might not otherwise consider it as a career path. Students graduate with both academic knowledge and marketable technical skills that prepare them for multiple pathways after high school.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Engineering I	❑ Engineering II ▪ *Digital Electronics* **OR** ▪ *Civil Architecture Design* **OR** ▪ *Computer Integrated Manufacturing* **OR** ▪ *Aerospace* **OR** ▪ *Environmental Sustainability* **OR** ▪ *AP Computer Science Principles*	❑ Engineering III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Engineering I	❑ Engineering II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Engineering I » Engineering II

COMPLETER OPTIONS:

- Engineering I » Engineering II » Engineering III
- Engineering I » Engineering II » Career Connected Learning I (Internship)
- Engineering I » Engineering II » Career Connected Learning I (Apprenticeship)
- Engineering I » Engineering II » Career Connected Learning I (School-based Enterprise)
- Engineering I » Engineering II » Career Connected Learning I (Employer-Driven Capstone)
- Engineering I » Engineering II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Onshape Professional

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

ENGINEERING

The Engineering program of study prepares students to apply engineering principles, technology, and the engineering design process to solve real-world challenges. Students develop skills in computer-aided design (CAD), engineering systems, materials science, manufacturing, and problem-solving while preparing for careers in a wide range of engineering and technology fields.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Engineering 1 A/B	ENR2040A/B	.5			★
Students explore how modern engineers help improve the world through diverse engineering fields, such as product design, mechanical design, infrastructure, and sustainability. Students learn and use some of the cutting edge tools engineers use in robotics, 3D modeling, programming, and prototyping.					
Engineering 2 Civil Architecture Design A/B	ENR2041A/B	.5	CM-AL	**Engineering 1**	ϟ
Students explore the foundations of computing by engaging in circuit design processes to create combinational logic and sequential logic (memory) as electrical engineers do in industry.					
Engineering 2 Aerospace A/B	ENR2042A/B	.5	CM-AL	**Engineering 1**	ϟ
Students learn important aspects of building and site design and development, and then they apply what they know to design a commercial building.					
Engineering 2 Aerospace Engineering A/B	ENR2043A/B	.5	CM-AL	**Engineering 1**	ϟ
Students explore the physics of flight and space through software simulations and hands-on experiences. They bring concepts to life by designing and testing an airfoil, propulsion system, and a rocket.					
Engineering 2 Computer Integrated Manufacture A/B	ENR2044A/B	.5	CM-AL	**Engineering 1**	ϟ
Students discover and explore manufacturing processes, product design, robotics, and automation, and then they apply what they have learned to design solutions for real-world manufacturing problems.					
Engineering 2 Computer Science Principles A/B	ENR2045A/B	.5	CM-AL	**Engineering 1**	ϟ
Using Python as a primary tool, students develop computational-thinking skills and tackle challenges like designing apps to solve real-world problems for clients.					
Engineering 2 Environmental Sustainability A/B	ENR2046A/B	.5	CM-AL	**Engineering 1**	ϟ
Students investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply, and renewable energy.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Engineering 3A/B	ENR2047A/B	.5	CM-AL	**Engineering 2**	ϟ
Students engage in an open-ended research experience in the PLTW Capstone course, a culminating program for those completing PLTW's high school offerings. They collaborate in teams, designing and developing original solutions to well-defined and justified real-world problems.					
CCL Engineering Internship 1 DP	ENR2048	1	CM-AL	**Engineering 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering Internship 2 DP	ENR2049	1	CM-AL	**CCL Engineering Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering Apprenticeship 1 DP	ENR2050	1	CM-AL	**Engineering 1**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering Apprenticeship 2 DP	ENR2051	1	CM-AL	**CCL Engineering Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering School Based Enterprise 1 DP	ENR2052	1	CM-AL	**Engineering 1**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering School Based Enterprise 2 DP	ENR2053	1	CM-AL	**CCL Engineering School Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering Employer-Driven Capstone 1 DP	ENR2054	1	CM-AL	**Engineering 2**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Engineering Employer-Driven Capstone 2 DP	ENR2055	1	CM-AL	**CCL Engineering Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Engineering Dual Enrollment	ENR5010A/B	1	CM-AL	**Engineering 1**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN AGRICULTURE SCIENCE

AVAILABLE AT NORTHWOOD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Agriculture	9-12	OSHA (Course II)

PROGRAM PURPOSE

The Agriculture Science pathway introduces students to plant, crop, and animal systems, soil and water science, as well as sustainable food production. Students build skills in biology, genetics, environmental systems, and agricultural technology while exploring future study and careers in agriculture.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE	❑ Agriculture Science I	❑ Crop Science II	❑ Crop Science III	❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
10TH GRADE		❑ Agriculture Science I	❑ Crop Science II	❑ Crop Science III **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Crop Science I	❑ Crop Science II ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Agriculture Science I » Agriculture Science II

COMPLETER OPTIONS:

- Agriculture Science I » Agriculture Science II » Agriculture Science III
- Agriculture Science I » Agriculture Science II » Career Connected Learning-Internship
- Agriculture Science I » Agriculture Science II » Career Connected Learning-Apprenticeship
- Agriculture Science I » Agriculture Science II » Career Connected Learning- School-Based Enterprise
- Agriculture Science I » Agriculture Science II » Career Connected Learning-Employer-Driven Capstone
- Agriculture Science I » Agriculture Science II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- OSHA (Course II)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



AGRICULTURE

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Agriculture Science 1 A/B	AGB2019A/B	.5			★
This introductory course gives students an overview of agricultural science and natural resources through hands-on activities, projects, and problem-solving. The course introduces students to biological, environmental, and technological principles.					
Crop Science 2 A/B	AGB2020A/B	.5	CM-AL	**Agriculture Science 1 A/B**	ϟ
This course allows students to explore natural resources, ecology, and sustainable agriculture through hands-on projects and activities. Students learn about environmental stewardship, plant growth, soils, pest management, and sustainable field-crop production in the Mid-Atlantic region.					
Crop Science 3A/B	AGB2021A/B	.5	CM-AL	**Crop Science 2 A/B**	ϟ
Students will deepen their mastery in natural resources, environmental science, and agricultural science. Students learn how crops grow and respond to their environment while exploring modern breeding techniques, precision agriculture, and sustainable practices for a changing climate.					
CCL Agriculture Science Internship 1 DP	AGB2025	1.0	CM-AL	**Crop Science 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Agriculture Science Internship 2 DP	AGB2026	1.0	CM-AL	**CCL Agriculture Science Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Ag Science Apprenticeship 1 DP	AGB2027	1.0	CM-AL	**Crop Science 1 A/B DP**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Ag Science Apprenticeship 2 DP	AGB2028	1.0	CM-AL	**CCL Ag Science Apprenticeship 1 DP**	
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Agriculture Science School-Based Enterprise 1 DP	AGB2029	1.0	CM-AL	**Crop Science 1/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Agriculture Science School-Based Enterprise 2 DP	AGB2030	1.0	CM-AL	**CCL Agriculture Science School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Agriculture Science Employer-Driven Capstone	AGB2031	1.0	CM-AL	**Crop Science 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Agriculture Science Employer-Driven Capstone 2	AGB2032	1.0	CM-AL	**CCL Ag Science Employer-Driven Capstone 1**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Agriculture Science Dual Enrollment	AGB5020	1.0	CM-AL	**Crop Science 2 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN HORTICULTURE SCIENCE

AVAILABLE AT DAMASCUS

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Agriculture	10-12	OSHA

PROGRAM PURPOSE

The Horticulture pathway gives students hands-on experience growing plants, designing landscapes, caring for soil, managing pests, and using sustainable practices. Students also explore innovative technologies, modern growing systems, plant breeding, and new approaches to agriculture while preparing for exciting careers and college opportunities in horticulture, landscaping, agriculture, environmental science, and related fields.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Horticulture Science I	❑ Horticulture Science II	❑ Horticulture Science III **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Horticulture Science I	❑ Horticulture Science II **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Horticulture Science I » Horticulture Science II

COMPLETER OPTIONS:

- Horticulture Science I » Horticulture Science II » Horticulture Science III
- Horticulture Science I » Horticulture Science II » Career Connected Learning- Internship
- Horticulture Science I » Horticulture Science II » Career Connected Learning- Apprenticeship
- Horticulture Science I » Horticulture Science II » Career Connected Learning- School-Based Enterprise
- Horticulture Science I » Horticulture Science II » Career Connected Learning- Capstone
- Horticulture Science I » Horticulture Science II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- OSHA

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

HORTICULTURE

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Horticulture Science 1 A/B	AGB2022A/B	.5			★
This course introduces students to the foundational principles of plant growth, basic plant anatomy, soil health, sustainable crop production, and design practices.					
Horticulture Science 2 A/B	AGB2023A/B	.5	CM-AL	**Horticulture Science 1 A/B**	ϟ
This course focuses on concepts of plant growth/ development, soil health, use of plants in landscape & turf settings, invasive plant species, and career opportunities.					
Horticulture Science 3A/B	AGB2024A/B	.5	CM-AL	**Horticulture Science 2 A/B**	ϟ
Students analyze sites and use design tools and methods to create and implement design plans, while deepening their understanding of the role of native plants in the designed environment. Students will also learn about plant breeding, new plant technologies, and modern farming methods.					
CCL Horticulture Internship 1 DP	AGB2033	1	CM-AL	**Horticulture Science 2 A/B DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture Internship 2 DP	AGB2034	1	CM-AL	**CCL Horticulture Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture Apprenticeship 1 DP	AGB2035	1	CM-AL	**Horticulture Science 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture Apprenticeship 2 DP	AGB2036	1	CM-AL	**CCL Horticulture Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture School-Based Enterprise 1	AGB2037	1	CM-AL	**Horticulture Science 1A /B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture School-Based Enterprise 2 DP	AGB2038	1		**CCL Horticulture School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture Employer-Driven Capstone 1 DP	AGB2039	1		**Horticulture Science 2 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Horticulture Employer-Driven Capstone 2 DP	AGB2040	1	CM-AL	**CCL Horticulture Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Horticulture Dual Enrollment	AGB5030	1	CM-AL	**Horticulture Science 2 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN ANIMATION & GAME DESIGN

AVAILABLE AT JAMES HUBERT BLAKE, GAITHERSBURG, QUINCE ORCHARD, AND CHARLES WOODWARD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Arts, Entertainment, and Design	10-12	Unity & Optional Adobe*

PROGRAM PURPOSE

The **Animation & Game Design Program of Study** prepares students with foundational through advanced skills in modeling, animation, and interactive game design. Students develop technical proficiency using industry-standard tools such as **Unity** and **Adobe applications**, while applying design principles, animation theory, and problem-solving strategies. The program emphasizes portfolio development, industry credentials, and career-connected learning experiences that prepare students for postsecondary education, certification, apprenticeships, or entry-level employment in the fields of digital media, animation, and game design.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Animation & Game Design I	❑ Animation & Game Design II	❑ Animation & Game Design III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Animation & Game Design I	❑ Animation & Game Design II ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Animation & Game Design I » Animation & Game Design II

COMPLETER OPTIONS:

- Animation & Game Design I » Animation & Game Design II » Animation & Game Design III
- Animation & Game Design I » Animation & Game Design II » Career Connected Learning I (Internship)
- Animation & Game Design I » Animation & Game Design II » Career Connected Learning I (Apprenticeship)
- Animation & Game Design I » Animation & Game Design II » Career Connected Learning I (School-Based Enterprise)
- Animation & Game Design I » Animation & Game Design II » Career Connected Learning I (Employer-Driven Capstone Project)
- Animation & Game Design I » Animation & Game Design II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Unity Certified User: Artist
- Unity Certified User: Programmer
  Eligibility: Completion of Animation & Game Design I or II
  Typical Timing: End of Course I or II

ADDITIONAL CREDENTIALS (*POSSIBLE BASED ON OTHER AED PROGRAMS OFFERED AT SCHOOL):

- Adobe Certified Professional in Animate
- Adobe Certified Professional in After Effects
  Eligibility: Completion of Animation & Game Design I or II
  Typical Timing: End of Course I or II

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

ANIMATION & GAME DEVELOPMENT

The Animation and Game Development Program of Study combines art, storytelling, and technology as students create digital animations and interactive games. Through hands-on projects, students develop skills in visual design, storyboarding, animation, coding, and game development using industry-relevant tools and software. The program prepares students for further education and careers in animation, game design, and digital media.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Animation and Game Development I A/B	AMC2020A/B	.5			★
Introduces digital storytelling, 2D animation, and basic game design. Students create storyboards and scripts, transform drawings into animated sequences, and incorporate motion, sound, and interactive elements using an industry-standard game engine.					
Animation and Game Development II A/B	AMC2021A/B	.5		**Animation and Game Development I A/B**	ϟ
Expands students' 2D animation skills and introduces 3D asset creation for games. Students model, texture, and optimize characters and environments, integrate original assets into a game engine, and develop player interactions, user interfaces, and physics through scripting or visual programming.					
Animation and Game Development III A/B	AMC2022A/B	.5		**Animation and Game Development II A/B**	ϟ
Develops advanced animation and game production skills through a collaborative capstone project. Students apply advanced modeling, rigging, shaders, and cinematic techniques while integrating audio and user interfaces into a polished, playable game segment. Emphasis includes project management, peer review, performance optimization, and portfolio development.					
CCL Animation and Game Development Internship 1 DP	AMC2023	1.0		**Animation and Game Development I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Animation and Game Development Internship 2 DP	AMC2024	1.0		**CCL Animation and Game Development Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Animation and Game Development Apprenticeship 1 DP	AMC2025	1.0		**Animation and Game Development I A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Animation and Game Development Apprenticeship 2 DP	AMC2026	1.0		**CCL Animation and Game Development Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Animation and Game Development Employer-Driven Capstone 1 DP	AMC2027	1.0		**Animation and Game DevelopmentA/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Animation and Game Development Employer-Driven Capstone 2 DP	AMC2028	1.0		**CCL Animation and Game Development Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Animation and Game Development School-Based Enterprise 1 DP	AMC2029	1.0		**Animation and Game Development I A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Animation and Game Development School-Based Enterprise 2 DP	AMC2052	1.0		**CCL Animation and Game Development School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Animation and Game Development Dual Enrollment	AMC5020	1.0		**Animation and Game Development I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN GRAPHIC COMMUNICATIONS

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Arts, Entertainment, and Design	11-12	Adobe Certified Professional (Premiere Pro)

PROGRAM PURPOSE

The **Graphic Communications** Program of Study prepares students with foundational through advanced skills in graphic design, digital imaging, layout, and print production. Students utilize industry-standard tools, such as Adobe Photoshop, Illustrator, and InDesign, to create digital and print-ready content while developing professional portfolios, earning industry credentials, and participating in career-connected learning experiences aligned with postsecondary education and workforce needs.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Graphic Communications 1 TP *(Semester A)* **AND** ❑ Graphic Communications 2 TP *(Semester B)*	❑ Graphic Communications 3 TP **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				❑ Graphic Communications 1 TP *(Semester A)* **AND** ❑ Graphic Communications 2 TP *(Semester B)*

PROGRAM STATUS

CONCENTRATOR

- Graphic Communications 1 » Graphic Communications 2

COMPLETER OPTIONS:

- Graphic Communications 1 » Graphic Communications 2 » Graphic Communications 3
- Graphic Communications 1 » Graphic Communications 2 » Career Connected Learning I (Internship)
- Graphic Communications 1 » Graphic Communications 2 » Career Connected Learning I (Apprenticeship)
- Graphic Communications 1 » Graphic Communications 2 » Career Connected Learning I (School-Based Enterprise)
- Graphic Communications 1 » Graphic Communications 2 » Career Connected Learning I (Employer-Driven Capstone Project)
- Graphic Communications 1 » Graphic Communications 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Adobe Certified Professional – Photoshop
- Adobe Certified Professional – Illustrator
  Eligibility: Completion of Graphic Communications 1 or 2
  Typical Timing: End of Graphic Communications 2

ADDITIONAL CREDENTIALS

- Adobe Certified Professional – InDesign
  Eligibility: Completion of Graphic Communications 1 or 2
  Typical Timing: During Flex Courses

Print[ED] Certifications in: Intro to Graphic Communications, Graphic Design, and Digital File Preparation and Output

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

GRAPHIC COMMUNICATIONS

The **Graphic Communications** Program of Study, offered exclusively at Thomas Edison High School of Technology, develops students' creative and technical skills in graphic design, digital imaging, and print production. Through hands-on projects, students use industry-standard software and equipment to create visual communications while learning layout, illustration, photo editing, and printing techniques. The program prepares students for further education and careers in design, media, and communications, with opportunities to earn industry certifications and college credit.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Graphic Communications 1 A/B TP	AMC2030A/B	1.5	15 SSL		★
Introduces foundational graphic communications skills, including design principles, visual composition, and industry-standard software. Students explore Adobe Photoshop, Illustrator, and Premiere Pro to develop digital design and media production skills.					
Graphic Communications 2 A/B TP	AMC2031A/B	1.5	15 SSL	**Graphic Communications 1 A/B TP**	ϟ
Builds on foundational graphic communications skills through digital imaging, advanced photo editing, and vector-based design. Students strengthen their proficiency with Adobe Photoshop and Illustrator.					
Graphic Communications 3A/B TP	AMC2032A/B	1.5	15 SSL	**Graphic Communications 2 A/B TP**	ϟ
Advances students' skills in layout design, prepress preparation, and publication production using Adobe InDesign. Students create multipage documents, manage complex typography, and incorporate interactive elements for digital and print media.					
CCL Graphic Communications Internship 1 DP	AMC2033	1.0		**Graphic Communications 1 A/B TP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications Internship 2 DP	AMC2034	1.0		**CCL Graphic Communications Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications Apprenticeship 1 DP	AMC2035	1.0		**Graphic Communications 1 A/B TP**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications Apprenticeship 2 DP	AMC2036	1.0		**CCL Graphic Communications Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications Employer-Driven Capstone 1 DP	AMC2037	1.0		**Graphic Communications 1 A/B TP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications Employer-Driven Capstone 2 DP	AMC2038	1.0		**CCL Graphic Communications Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Graphic Communications School-Based Enterprise 1 DP	AMC2039	1.0		**Graphic Communications 1 A/B TP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Graphic Communications School-Based Enterprise 2 DP	AMC2040	1.0		**Graphic Communications CCL School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Graphic Communications Dual Enrollment	AMC5030	1.0		**Graphic Communications 1 A/B TP**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN VIDEO AND AUDIO PRODUCTION

AVAILABLE AT JAMES HUBERT BLAKE, GAITHERSBURG, NORTHWOOD, PAINT BRANCH, QUINCE ORCHARD, AND CHARLES WOODWARD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Arts, Entertainment, and Design	10-12	Adobe Certified Professional (Premiere Pro)

PROGRAM PURPOSE

The **Video and Audio Production** Program of Study prepares students with foundational through advanced skills in media production and broadcasting. Students develop competencies in video editing, audio recording, lighting, motion graphics, and post-production using industry-standard tools, such as Adobe Premiere Pro, Photoshop, Illustrator, and perhaps even After Effects. The program emphasizes ethical media practices, collaborative workflows, portfolio development, industry certifications, and career-connected learning to prepare students for postsecondary education and careers in film, television, radio, streaming, and digital media.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Video & Audio Production I	❑ Video & Audio Production II	❑ Video & Audio Production III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Video & Audio Production I	❑ Video & Audio Production II **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Video & Audio Production I » Video & Audio Production II

COMPLETER OPTIONS:

- Video & Audio Production I » Video & Audio Production II » Video & Audio Production III
- Video & Audio Production I » Video & Audio Production II » Career Connected Learning I (Internship)
- Video & Audio Production I » Video & Audio Production II » Career Connected Learning I (Apprenticeship)
- Video & Audio Production I » Video & Audio Production II » Career Connected Learning I (School-Based Enterprise)
- Video & Audio Production I » Video & Audio Production II » Career Connected Learning I (Employer-Driven Capstone Project)
- Video & Audio Production I » Video & Audio Production II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Adobe Certified Professional – Premiere Pro
  Eligibility: Completion of Video and Audio Production I & II
  Typical Timing: End of Video and Audio Production II

ADDITIONAL CREDENTIALS (*POSSIBLE BASED ON OTHER AED PROGRAMS OFFERED AT SCHOOL):

- Adobe Certified Professional – Photoshop or Illustrator (Course I)
  Eligibility: Completion of Video and Audio Production I
  Typical Timing: End of Video and Audio Production I
- Adobe Certified Professional – After Effects
  Eligibility: Completion of Video and Audio Production II
  Typical Timing: During CCL or Flex Courses

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



VIDEO AND AUDIO PRODUCTION

The **Video and Audio Production** Program of Study develops students' creative, communication, and technical skills through hands-on media production. Students learn scriptwriting, camera operation, lighting, audio techniques, and editing while creating original productions. The program prepares students for further education and careers in broadcasting, video and audio production, and digital media.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Video and Audio Production I A/B	AMC2041A/B	.5			★
Introduces media production and broadcasting through visual composition, audio recording, and storytelling. Students develop video and audio skills in studio, field, and live-event settings while exploring careers in film, television, radio, and online media and the ethical use of emerging technologies.					
Video and Audio Production II A/B	AMC2042A/B	.5		**Video and Audio Production I A/B**	ϟ
Expands students' media production skills through intermediate video editing, audio post-production, and collaborative workflow management. Students use Adobe Premiere Pro to edit, color grade, and master audiovisual projects.					
Video and Audio Production III A/B	AMC2043A/B	.5		**Video and Audio Production II A/B**	ϟ
Advances students' technical and creative skills in audio engineering and motion graphics. Students use editing tools for professional multitrack recording, editing, and mixing, specialize in broadcast audio, live-event sound, studio recording, or post-production sound, and complete a capstone project involving collaboration across disciplines.					
CCL Video and Audio Production Internship 1 DP	AMC2044	1		**Video and Audio Production I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Video and Audio Production Internship 2 DP	AMC2045	1		**CCL Video and Audio Production Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production Apprenticeship 1 DP	AMC2046	1		**Video and Audio Production I A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production Apprenticeship 2 DP	AMC2047	1		**CCL Video and Audio Production Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production Employer-Driven Capstone 1 DP	AMC2048	1		**Video and Audio Production I A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production Employer-Driven Capstone 2 DP	AMC2049	1		**CCL Video and Audio Production Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production School-Based Enterprise 1 DP	AMC2050	1		**Video and Audio Production I A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Video and Audio Production School-Based Enterprise 2 DP	AMC2051	1		**CCL Video and Audio Production School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Video and Audio Production Dual Enrollment	AMC5040	1		**Video and Audio Production I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN ARCHITERCTURAL DESIGN AND DRAFTING

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12	Autodesk Certified User: Revit, AutoCAD

PROGRAM PURPOSE

Prepare students for careers in architecture, engineering, and construction management through architectural design, drafting, and sustainable building practices. Students progress from hand sketching, basic CAD, and model making to Building Information Modeling (BIM), construction documentation, and credential preparation. Optional courses extend learning through sustainable design and career-connected experiences.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Architectural Design Principles *(Semester A)* **AND** ❑ Architectural Design 1 *(Semester B)*	❑ Architectural Design 2 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Architectural Design Principles » Architectural Design 1

COMPLETER OPTIONS:

- Architectural Design Principles » Architectural Design 1 » Architectural Design 2
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Internship
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Apprenticeship
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: School-Based Enterprise
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Employer-Driven Capstone
- Architectural Design Principles » Architectural Design 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Autodesk Certified User: Revit, AutoCAD

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



ARCHITECTURAL DESIGN AND DRAFTING

The **Architectural Design and Drafting** program prepares students for opportunities in architectural design, engineering, and related construction fields. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experience, students develop skills in architectural planning, design, and computer-aided drafting using industry-standard software such as AutoCAD and Revit. Students apply their knowledge to projects that progress from initial concepts to completed architectural plans. Students who complete the program may be eligible to earn college credit through Montgomery College's Architectural Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Architectural Design Principles	CON2069	1.5			★
Students explore architectural principles, history, building systems, and sustainable design while learning traditional drafting techniques and computer aided design software. Through hands on projects, students practice shop safety, create physical models, and develop spatial thinking and visualization skills using hand sketches and digital tools.					
Architectural Design 1	CON2070	1.5	CM-AL	**Architectural Design Principles**	↯
Students use Building Information Modeling with Autodesk Revit to create detailed digital building models, coordinate building systems, and produce construction documents while learning building codes and cost estimation. Through advanced model making and digital fabrication, students strengthen their technical skills and prepare for the Autodesk Revit Certified User exam.					
Architectural Design 2	CON2071	1.5	CM-AL	**Architectural Design 1**	↯
Students explore environmentally responsive design, integrated mechanical, electrical, and plumbing systems, and LEED certification concepts. Using energy modeling software and environmental analysis tools, students analyze sites, conduct daylight studies, and develop sustainable design solutions supported by detailed technical documentation to improve building performance.					
CCL Architectural Design Internship I DP	CON2072	1	CM-AL	**Construction Fundamentals - Architectural Design**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Internship II DP	CON2073	1	CM-AL	**CCL Architectural Design Internship I DP**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Architectural Design Apprenticeship I DP	CON2074	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Apprenticeship II DP	CON2075	1	CM-AL	**CCL Architectural Design Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Employer-Driven Capstone I DP	CON2076	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Employer-Driven Capstone II DP	CON2077	1	CM-AL	**CCL Architectural Design Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design School-Based Enterprise I DP	CON2078	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design School-Based Enterprise II DP	CON2079	1	CM-AL	**CCL Architectural Design School-Based Enterprise I DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Architectural Design Dual Enrollment DP	CON5010	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN ARCHITECTURAL DESIGN AND DRAFTING

AVAILABLE AT SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12	Autodesk Certified User: Revit, AutoCAD

PROGRAM PURPOSE

Prepare students for careers in architecture, engineering, and construction management through architectural design, drafting, and sustainable building practices. Students progress from hand sketching, basic CAD, and model making to Building Information Modeling (BIM), construction documentation, and credential preparation. Optional courses extend learning through sustainable design and career-connected experiences.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE		❑ Architectural Design Principles	❑ Architectural Design 1	❑ Architectural Design 2 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE			❑ Architectural Design Principles	❑ Architectural Design 1 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment

PROGRAM STATUS

CONCENTRATOR

- Architectural Design Principles » Architectural Design 1

COMPLETER OPTIONS:

- Architectural Design Principles » Architectural Design 1 » Architectural Design 2
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Internship
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Apprenticeship
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: School-Based Enterprise
- Architectural Design Principles » Architectural Design 1 » Career-Connected Learning: Employer-Driven Capstone
- Architectural Design Principles » Architectural Design 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Autodesk Certified User: Revit, AutoCAD

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

ARCHITECTURAL DESIGN AND DRAFTING

The **Architectural Design and Drafting** program at **Seneca Valley High School** prepares students for opportunities in architectural design, engineering, and related construction fields. The program is available to qualifying students who attend Seneca Valley full-time as their home school. Students from Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, and Watkins Mill high schools may apply for admission to attend Seneca Valley part-time while remaining enrolled at their home school. Through classroom instruction and hands-on experience, students develop skills in architectural planning, design, and computer-aided drafting using industry-standard software such as AutoCAD and Revit. Students apply their knowledge to projects that progress from initial concepts to completed architectural plans. Students who complete the program may be eligible to earn college credit through Montgomery College's Architectural Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Architectural Design Principles A/B	CON2066A/B	.5			★
Students explore architectural principles, history, building systems, and sustainable design while learning traditional drafting techniques and computer aided design software. Through hands on projects, students practice shop safety, create physical models, and develop spatial thinking and visualization skills using hand sketches and digital tools.					
Architectural Design 1 A/B	CON2067A/B	.5	CM-AL	**Architectural Design Principles**	↯
Students use Building Information Modeling with Autodesk Revit to create detailed digital building models, coordinate building systems, and produce construction documents while learning building codes and cost estimation. Through advanced model making and digital fabrication, students strengthen their technical skills and prepare for the Autodesk Revit Certified User exam.					
Architectural Design 2 A/B	CON2068A/B	.5	CM-AL	**Architectural Design 1**	↯
Students explore environmentally responsive design, integrated mechanical, electrical, and plumbing systems, and LEED certification concepts. Using energy modeling software and environmental analysis tools, students analyze sites, conduct daylight studies, and develop sustainable design solutions supported by detailed technical documentation to improve building performance.					
CCL Architectural Design Internship I DP	CON2072	1	CM-AL	**Construction Fundamentals - Architectural Design**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Internship II DP	CON2073	1	CM-AL	**CCL Architectural Design Internship I DP**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Apprenticeship I DP	CON2074	1	CM-AL	**Construction Fundamentals - Architectural Design**	↯
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Apprenticeship II DP	CON2075	1	CM-AL	**CCL Architectural Design Apprenticeship I DP**	↯
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Employer-Driven Capstone I DP	CON2076	1	CM-AL	**Construction Fundamentals - Architectural Design**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design Employer-Driven Capstone II DP	CON2077	1	CM-AL	**CCL Architectural Design Employer-Driven Capstone I DP**	↯

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design School-Based Enterprise I DP	CON2078	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Architectural Design School-Based Enterprise II DP	CON2079	1	CM-AL	**CCL Architectural Design School-Based Enterprise I DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Architectural Design Dual Enrollment	CON5010	1	CM-AL	**Construction Fundamentals - Architectural Design**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CARPENTRY

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12 Program entry begins in grade 11	NCCER Core; General Carpentry Certificate; NCCER Carpentry 1; OSHA

PROGRAM PURPOSE

Prepare students for carpentry careers through construction safety, tools, mathematics, drawings, and hands-on building projects. Students progress to materials handling and floor, wall, and ceiling framing. Optional advanced study develops stair layout, roof framing, exterior finishes, estimating, and job-site skills.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Construction Fundamentals - Carpentry *(Semester A)* **AND** ❑ Carpentry 1 *(Semester B)*	❑ Carpentry 2A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - Carpentry
- Carpentry 1

COMPLETER OPTIONS:

- Construction Fundamentals - Carpentry » Carpentry 1 » Carpentry 2
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Internship
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - Carpentry » Carpentry 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Core Construction Principles:** NCCER Core
- **Carpentry 1:** General Carpentry Certificate, NCCER Carpentry 1 + OSHA

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



CARPENTRY

The **Carpentry** program prepares students for opportunities in the residential construction industry. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experience, students develop essential carpentry skills, learn construction techniques, and build workplace competencies. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - Carpentry	CON2083	1.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in carpentry. The course builds communication and employability skills, prepares students for further study in carpentry, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Carpentry 1	CON2084	1.5	15 SSL, CM-AL	**Construction Fundamentals - Carpentry**	ϟ
Students learn construction safety, blueprint reading, material handling, construction math, and the proper use of hand and power tools. Through hands-on projects, students frame floors, walls, and ceilings, construct simple structures, and explore residential construction systems while following OSHA safety standards.					
Carpentry 2 A/B	CON2085	1.5	CM-AL	**Carpentry 1**	ϟ
Students build on foundational carpentry skills through stair layout, roof framing, advanced blueprint reading, material estimation, and job site management. Through hands-on projects, students construct complex frameworks, install windows, doors, and siding, and apply interior and exterior finishing techniques while preparing for work on construction teams or further industry certification.					
CCL Carpentry Internship I DP	CON2086	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Internship II DP	CON2087	1	CM-AL	**CCL Carpentry Internship I**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Carpentry Apprenticeship I DP	CON2088	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Apprenticeship II DP	CON2089	1	CM-AL	**CCL Carpentry Apprenticeship I**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Employer-Driven Capstone I DP	CON2090	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Employer-Driven Capstone II DP	CON2091	1	CM-AL	**CCL Carpentry Employer-Driven Capstone I**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry School-Based Enterprise I DP	CON2092	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry School-Based Enterprise II DP	CON2093	1	CM-AL	**CCL Carpentry School-Based Enterprise I**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Carpentry Dual Enrollment	CON5020	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CARPENTRY

AVAILABLE AT SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11 to 12 Program entry begins in grade 11	NCCER Core; General Carpentry Certificate; NCCER Carpentry 1; OSHA

PROGRAM PURPOSE

Prepare students for carpentry careers through construction safety, tools, mathematics, drawings, and hands-on building projects. Students progress to materials handling and floor, wall, and ceiling framing. Optional advanced study develops stair layout, roof framing, exterior finishes, estimating, and job-site skills.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Construction Fundamentals - Carpentry	❑ Carpentry 1	❑ Carpentry 2 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Construction Fundamentals - Carpentry	❑ Carpentry 1 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - Carpentry
- Carpentry 1

COMPLETER OPTIONS:

- Construction Fundamentals - Carpentry » Carpentry 1 » Carpentry 2
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Internship
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - Carpentry » Carpentry 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - Carpentry » Carpentry 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Core Construction Principles:** NCCER Core
- **Carpentry 1:** General Carpentry Certificate, NCCER Carpentry 1 + OSHA

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



CARPENTRY

The **Carpentry** program at **Seneca Valley High School** prepares students for opportunities in the residential construction industry. The program is available to qualifying students who attend Seneca Valley full-time as their home school. Students from Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, and Watkins Mill high schools may apply for admission to attend Seneca Valley part-time while remaining enrolled at their home school.Through classroom instruction and hands-on experience, students develop essential carpentry skills, learn construction techniques, and build workplace competencies. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - Carpentry A/B	CON2080A/B	.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in carpentry. The course builds communication and employability skills, prepares students for further study in carpentry, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Carpentry 1 A/B	CON2081A/B	.5	5 SSL, CM-AL	**Construction Fundamentals - Carpentry**	ϟ
Students learn construction safety, blueprint reading, material handling, construction math, and the proper use of hand and power tools. Through hands-on projects, students frame floors, walls, and ceilings, construct simple structures, and explore residential construction systems while following OSHA safety standards.					
Carpentry 2 A/B	CON2082A/B	.5	5 SSL, CM-AL	**Carpentry 1**	ϟ
Students build on foundational carpentry skills through stair layout, roof framing, advanced blueprint reading, material estimation, and job site management. Through hands-on projects, students construct complex frameworks, install windows, doors, and siding, and apply interior and exterior finishing techniques while preparing for work on construction teams or further industry certification.					
CCL Carpentry Internship I DP	CON2086	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Internship II DP	CON2087	1	CM-AL	**CCL Carpentry Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Apprenticeship I DP	CON2088	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Carpentry Apprenticeship II DP	CON2089	1	CM-AL	**CCL Carpentry Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Employer-Driven Capstone I DP	CON2090	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry Employer-Driven Capstone II DP	CON2091	1	CM-AL	**CCL Carpentry Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry School-Based Enterprise I DP	CON2092	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Carpentry School-Based Enterprise II DP	CON2093	1	CM-AL	**CCL Carpentry School-Based Enterprise I DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Carpentry Dual Enrollment	CON5020	1	CM-AL	**Construction Fundamentals - Carpentry**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN ELECTRICAL

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12 Program entry begins in grade 11	NCCER Core; NCCER Electrical Level 1 Certificate; OSHA

PROGRAM PURPOSE

Prepare students for residential, commercial, and industrial electrical work or further technical education. Construction fundamentals lead to electrical safety, circuit theory, code interpretation, residential wiring, conduit, conductors, and testing. Optional advanced study covers alternating current, lighting, transformers, grounding, bonding, and controls.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Construction Fundamentals - Electrical *(Semester A)* **AND** ❑ Electrical 1 *(Semester B)*	❑ Electrical 2A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - Electrical
- Electrical 1

COMPLETER OPTIONS:

- Construction Fundamentals - Electrical » Electrical 1 » Electrical 2
- Construction Fundamentals - Electrical » Electrical 1 » Career-Connected Learning: Internship
- Construction Fundamentals - Electrical » Electrical 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - Electrical » Electrical 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - Electrical » Electrical 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - Electrical » Electrical 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Construction Fundamentals - Electrical:** NCCER Core
- **Electrical 1:** NCCER Electrical Level 1 Certificate + OSHA

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

ELECTRICAL

The **Electrical** program prepares students for opportunities in the residential and commercial construction industries. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experience, students develop essential electrical skills, learn installation techniques, and build workplace competencies. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Construction Fundamentals - Electrical	CON2111	1.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in the electrical trade. The course builds communication and employability skills, prepares students for further study in electrical systems, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Electrical 1	CON2112	1.5	15 SSL, CM-AL	**Construction Fundamentals - Electrical**	↯
Students explore electrical careers and learn circuit fundamentals, residential wiring, and local, state, and federal electrical codes. Through practical activities, students develop electrical skills and practice workplace safety procedures aligned with OSHA Construction training.					
Electrical 2 A/B	CON2113	1.5	15 SSL, CM-AL	**Electrical 1**	↯
Students deepen their knowledge of electrical theory, safety, tools, and codes while learning to install electrical equipment, conductors, services, lighting, and alternating current and direct current motors. The course prepares students for employment, approved apprenticeships, or further study in electrical systems, construction, or construction management.					
CCL Electrical Internship I DP	CON2114	1	CM-AL	**Construction Fundamentals - Electrical**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Internship II DP	CON2115	1	CM-AL	**CCL Electrical Internship I**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Apprenticeship I DP	CON2116	1	CM-AL	**Construction Fundamentals - Electrical**	↯
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Apprenticeship II DP	CON2117	1	CM-AL	**CCL Electrical Apprenticeship I DP**	↯
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Employer-Driven Capstone I DP	CON2118	1	CM-AL	**Construction Fundamentals - Electrical**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Employer-Driven Capstone II DP	CON2119	1	CM-AL	**CCL Electrical Employer-Driven Capstone I**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical School-Based Enterprise I DP	CON2120	1	CM-AL	**Construction Fundamentals - Electrical**	↯
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical School-Based Enterprise II DP	CON2121	1	CM-AL	**CCL Electrical School-Based Enterprise I**	↯
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Electrical Dual Enrollment	CON5040	1	CM-AL	**Construction Fundamentals - Electrical**	↯
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN ELECTRICAL

AVAILABLE AT SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	10-12 Program entry begins in grade 10	NCCER Core; NCCER Electrical Level 1 Certificate; OSHA

PROGRAM PURPOSE

Prepare students for residential, commercial, and industrial electrical work or further technical education. Construction fundamentals lead to electrical safety, circuit theory, code interpretation, residential wiring, conduit, conductors, and testing. Optional advanced study covers alternating current, lighting, transformers, grounding, bonding, and controls.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Core Construction Principles - Electrical	❑ Electrical 1	❑ Electrical 2 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Core Construction Principles - Electrical	❑ Electrical 1 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Core Construction Principles - Electrical
- Electrical 1

COMPLETER OPTIONS:

- Core Construction Principles - Electrical » Electrical 1 » Electrical 2
- Core Construction Principles - Electrical » Electrical 1 » Career-Connected Learning: Internship
- Core Construction Principles - Electrical » Electrical 1 » Career-Connected Learning: Apprenticeship
- Core Construction Principles - Electrical » Electrical 1 » Career-Connected Learning: School-Based Enterprise
- Core Construction Principles - Electrical » Electrical 1 » Career-Connected Learning: Employer-Driven Capstone
- Core Construction Principles - Electrical » Electrical 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Core Construction Principles - Electrical:** NCCER Core
- **Electrical 1:** NCCER Electrical Level 1 Certificate + OSHA

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

ELECTRICAL

The **Electrical** program at **Seneca Valley High School** prepares students for opportunities in the residential and commercial construction industries. The program is available to qualifying students who attend Seneca Valley full-time as their home school. Students from Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, and Watkins Mill high schools may apply for admission to attend Seneca Valley part-time while remaining enrolled at their home school. Through classroom instruction and hands-on experience, students develop essential electrical skills, learn installation techniques, and build workplace competencies. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - ElectricalA/B	CON2108A/B	.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in the electrical trade. The course builds communication and employability skills, prepares students for further study in electrical systems, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Electrical 1 A/B	CON2109A/B	.5	5 SSL, CM-AL	**Construction Fundamentals - Electrical A/B**	ϟ
Students explore electrical careers and learn circuit fundamentals, residential wiring, and local, state, and federal electrical codes. Through practical activities, students develop electrical skills and practice workplace safety procedures aligned with OSHA Construction training.					
Electrical 2 A/B	CON2110A/B	.5	5 SSL, CM-AL	**Electrical 1 A/B**	ϟ
Students deepen their knowledge of electrical theory, safety, tools, and codes while learning to install electrical equipment, conductors, services, lighting, and alternating current and direct current motors. The course prepares students for employment, approved apprenticeships, or further study in electrical systems, construction, or construction management.					
CCL Electrical Internship I DP	CON2114	1	CM-AL	**Construction Fundamentals - Electrical**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Internship II DP	CON2115	1	CM-AL	**CCL Electrical Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Apprenticeship I DP	CON2116	1	CM-AL	**Construction Fundamentals - Electrical**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Apprenticeship II DP	CON2117	1	CM-AL	**CCL Electrical Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Employer-Driven Capstone I DP	CON2118	1	CM-AL	**Construction Fundamentals - Electrical**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Electrical Employer-Driven Capstone II DP	CON2119	1	CM-AL	**CCL Electrical Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Electrical School-Based Enterprise I DP	CON2120	1	CM-AL	**Construction Fundamentals - Electrical**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Electrical School-Based Enterprise II DP	CON2121	1	CM-AL	**CCL Electrical School-Based Enterprise I DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Electrical Dual Enrollment	CON5040	1	CM-AL	**Construction Fundamentals - Electrical**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12 Program entry begins in grade 11	NCCER Core; NCCER HVACR Level 1 Certificate; OSHA

PROGRAM PURPOSE

Prepare students for heating, ventilation, air conditioning, and refrigeration careers through construction safety, tools, mathematics, and drawings. Students progress to HVACR theory, electrical fundamentals, piping, and ductwork. Optional advanced study develops skills in heat pumps, compressors, air quality, refrigerant handling, maintenance, and troubleshooting.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Construction Fundamentals - HVACR *(Semester A)* **AND** ❑ HVACR 1 *(Semester B)*	❑ HVACR 2A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - HVACR
- HVACR 1

COMPLETER OPTIONS:

- Construction Fundamentals - HVACR » HVACR 1 » HVACR 2
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Internship
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - HVACR » HVACR 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **By the end of Construction Fundamentals - HVACR:** NCCER Core
- **By the end of HVACR 1:** HVACR Level 1 Certificate + OSHA
- **By the end of HVACR 2:** HVACR Level 2 Certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION (HVACR)

The **Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)** program prepares students for opportunities in the heating, ventilation, and air conditioning industry. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experience, students develop foundational and advanced knowledge of HVAC systems, equipment, and technologies. Authentic projects allow students to apply their skills using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - HVACR	CON2097A/B	1.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in heating, ventilation, air conditioning, and refrigeration. The course builds communication and employability skills, prepares students for further study in HVACR, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
HVACR 1	CON2098	1.5	15 SSL, CM-AL	**Construction Fundamentals - HVACR**	ϟ
Students learn safety procedures, tool use, basic math, drawing interpretation, and techniques for measuring, cutting, and joining plastic, copper, cast iron, and steel piping. Through hands-on projects, students practice installing drain, waste, and vent systems, water distribution systems, and fixtures while applying code requirements and basic HVACR 1nstallation principles.					
HVACR 2 A/B	CON2099A/B	1.5	15 SSL, CM-AL	**HVACR 1**	ϟ
Students apply advanced piping calculations, interpret commercial drawings, and explore drainage systems, water heaters, fuel gas systems, and electrical circuits used in HVACR applications. Through hands-on projects, students install valves, test and troubleshoot drain, waste, vent, and water supply systems, and address structural considerations, insulation, and firestopping while following relevant codes and safety standards.					
CCL HVACR Internship I DP	CON2100	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Internship II DP	CON2101	1	CM-AL	**CCL HVACR Internship I**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL HVACR Apprenticeship I DP	CON2102	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Apprenticeship II DP	CON2103	1	CM-AL	**CCL HVACR Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Employer-Driven Capstone I DP	CON2104	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Employer-Driven Capstone II DP	CON2105	1	CM-AL	**CCL HVACR Employer-Driven Capstone I**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR School-Based Enterprise I DP	CON2106	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR School-Based Enterprise II DP	CON2107	1	CM-AL	**CCL HVACR School-Based Enterprise I**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
HVACR Dual Enrollment	CON5030	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

AVAILABLE AT SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	10-12 Program entry begins in grade 10	NCCER Core; NCCER HVACR Level 1 Certificate; OSHA

PROGRAM PURPOSE

Prepare students for heating, ventilation, air conditioning, and refrigeration careers through construction safety, tools, mathematics, and drawings. Students progress to HVACR theory, electrical fundamentals, piping, and ductwork. Optional advanced study develops skills in heat pumps, compressors, air quality, refrigerant handling, maintenance, and troubleshooting.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Construction Fundamentals - HVACR	❑ HVACR 1	❑ HVACR 2 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Construction Fundamentals - HVACR	❑ HVACR 1 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - HVACR
- HVACR 1

COMPLETER OPTIONS:

- Construction Fundamentals - HVACR » HVACR 1 » HVACR 2
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Internship
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - HVACR » HVACR 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - HVACR » HVACR 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **By the end of Construction Fundamentals - HVACR - HVACR:** NCCER Core
- **By the end of HVACR 1:** HVACR Level 1 Certificate + OSHA
- **By the end of HVACR 2:** HVACR Level 2 Certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION (HVACR)

The **Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR)** program at **Seneca Valley High School** prepares students for opportunities in the heating, ventilation, and air conditioning industry. The program is available to qualifying students who attend Seneca Valley full-time as their home school. Students from Clarksburg, Damascus, Gaithersburg, Magruder, Northwest, Poolesville, Quince Orchard, and Watkins Mill high schools may apply for admission to attend Seneca Valley part-time while remaining enrolled at their home school. Through classroom instruction and hands-on experience, students develop foundational and advanced knowledge of HVAC systems, equipment, and technologies. Authentic projects allow students to apply their skills using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - HVACRA/B	CON2094A/B	.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in heating, ventilation, air conditioning, and refrigeration. The course builds communication and employability skills, prepares students for further study in HVACR, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
HVACR 1 A/B	CON2095A/B	.5	5 SSL, CM-AL	**Construction Fundamentals - HVACRA/B**	ϟ
Students learn safety procedures, tool use, basic math, drawing interpretation, and techniques for measuring, cutting, and joining plastic, copper, cast iron, and steel piping. Through hands-on projects, students practice installing drain, waste, and vent systems, water distribution systems, and fixtures while applying code requirements and basic HVACR 1nstallation principles.					
HVACR 2 A/B	CON2096A/B	.5	5 SSL, CM-AL	**HVACR 1**	ϟ
Students apply advanced piping calculations, interpret commercial drawings, and explore drainage systems, water heaters, fuel gas systems, and electrical circuits used in HVACR applications. Through hands-on projects, students install valves, test and troubleshoot drain, waste, vent, and water supply systems, and address structural considerations, insulation, and firestopping while following relevant codes and safety standards.					
CCL HVACR Internship I DP	CON2100	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Internship II DP	CON2101	1	CM-AL	**CCL HVACR Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Apprenticeship I DP	CON2102	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Apprenticeship II DP	CON2103	1	CM-AL	**CCL HVACR Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Employer-Driven Capstone I DP	CON2104	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR Employer-Driven Capstone II DP	CON2105	1	CM-AL	**CCL HVACR Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL HVACR School-Based Enterprise I DP	CON2106	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL HVACR School-Based Enterprise II DP	CON2107	1	CM-AL	**CCL HVACR School-Based Enterprise I DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
HVACR Dual Enrollment	CON5030	1	CM-AL	**Construction Fundamentals - HVACR**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN MASONRY

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12 Program entry begins in grade 11	NCCER Core; OSHA; Masonry Level 1 Certificate

PROGRAM PURPOSE

Prepare students for masonry employment, apprenticeships, and further education through construction safety, tools, mathematics, and drawings. Students develop skills in mortar preparation and brick, block, and stone construction. Optional advanced work includes reinforced masonry, fireplaces, chimneys, arches, and moisture control.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Construction Fundamentals - Masonry *(Semester A)* **AND** ❑ Masonry 1 *(Semester B)*	❑ Masonry 2A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - Masonry
- Masonry 1

COMPLETER OPTIONS:

- Construction Fundamentals - Masonry » Masonry 1 » Masonry 2
- Construction Fundamentals - Masonry » Masonry 1 » Career-Connected Learning: Internship
- Construction Fundamentals - Masonry » Masonry 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - Masonry » Masonry 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - Masonry » Masonry 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - Masonry » Masonry 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Construction Fundamentals - Masonry:** NCCER Core + OSHA
- **Masonry 1:** Masonry Level 1 Certificate
- **Masonry 2:** Masonry Level 2 Certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



MASONRY

The **Masonry** program at **Thomas Edison High School of Technology (TEHST)** prepares students for opportunities in the residential and commercial construction industries. Students apply for admission and, once accepted, attend TEHST part-time while remaining enrolled at their home high school. Through classroom instruction and hands-on experience, students develop essential masonry skills, learn brick and block construction techniques, and build workplace competencies. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may pursue apprenticeships or careers in masonry and may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Construction Fundamentals - Masonry	CON2122	1.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in masonry. The course builds communication and employability skills, prepares students for further study in masonry, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Masonry 1	CON2123	1.5	15 SSL, CM-AL	**Construction Fundamentals - Masonry**	ϟ
Students learn masonry safety, construction math, drawing interpretation, and the proper use of tools and equipment for brick, block, and stone construction. Through hands-on practice, students mix and apply mortar, lay masonry units, and use accurate measurements and quality control procedures.					
Masonry 2 A/B	CON2124A/B	1.5	15 SSL, CM-AL	**Masonry 1**	ϟ
Students develop advanced skills in residential and commercial masonry, including reinforced construction, fireplaces, chimneys, arches, detailed brickwork, and cavity, composite, and veneer walls. Through hands-on projects, students interpret advanced blueprints and install masonry openings, metalwork, insulation, moisture control systems, and reinforcement while following building codes and quality standards.					
CCL Masonry Internship 1 DP	CON2125	1	CM-AL	**Construction Fundamentals - Masonry**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry Internship 2 DP	CON2126	1	CM-AL	**CCL Masonry Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Masonry Apprenticeship 1 DP	CON2127	1	CM-AL	**Construction Fundamentals - Masonry**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry Apprenticeship 2 DP	CON2128	1	CM-AL	**CCL Masonry Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry Employer-Driven Capstone 1 DP	CON2129	1	CM-AL	**Construction Fundamentals - Masonry**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry Employer-Driven Capstone 2 DP	CON2130	1	CM-AL	**CCL Masonry Employer-Driven Capstone I**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry School-Based Enterprise 1 DP	CON2131	1	CM-AL	**Construction Fundamentals - Masonry**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Masonry School-Based Enterprise 2 DP	CON2132	1	CM-AL	**CCL Masonry School-Based Enterprise I**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Masonry Dual Enrollment	CON5055	1	CM-AL	**Construction Fundamentals - Masonry**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN PLUMBING

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Construction	11-12 Program entry begins in grade 11	NCCER Core; OSHA; Plumbing Level 1 Certificate

PROGRAM PURPOSE

Prepare students for plumbing employment and further technical education through construction safety, tools, mathematics, and drawings. Students learn pipe measurement, cutting, joining, fixtures, drain-waste-vent systems, and water distribution. Optional advanced work develops skills in commercial drawings, system testing, valves, water heaters, fuel systems, and troubleshooting.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Construction Fundamentals Plumbing *(Semester A)* **AND** ❑ Plumbing 1 *(Semester B)*	❑ Plumbing 2A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE				

PROGRAM STATUS

CONCENTRATOR

- Construction Fundamentals - Plumbing
- Plumbing 1

COMPLETER OPTIONS:

- Construction Fundamentals - Plumbing » Plumbing 1 » Plumbing 2
- Construction Fundamentals - Plumbing » Plumbing 1 » Career-Connected Learning: Internship
- Construction Fundamentals - Plumbing » Plumbing 1 » Career-Connected Learning: Apprenticeship
- Construction Fundamentals - Plumbing » Plumbing 1 » Career-Connected Learning: School-Based Enterprise
- Construction Fundamentals - Plumbing » Plumbing 1 » Career-Connected Learning: Employer-Driven Capstone
- Construction Fundamentals - Plumbing » Plumbing 1 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Construction Fundamentals - Plumbing:** NCCER Core + OSHA
- **Plumbing 1:** Plumbing Level 1 Certificate
- **Plumbing 2 (optional):** Plumbing Level 2 Certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



PLUMBING

The **Plumbing** program at **Thomas Edison High School of Technology (TEHST)** prepares students for opportunities in the residential, commercial, and industrial construction industries. Students apply for admission and, once accepted, attend TEHST part-time while remaining enrolled at their home high school. Through classroom instruction and hands-on experience, students develop skills in the installation, maintenance, and repair of water supply, drainage, waste disposal, and gas piping systems. Authentic construction projects allow students to apply their learning using industry practices. Students who complete the program may be eligible to earn college credit through Montgomery College's Construction Technology program.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Construction Fundamentals - Plumbing	CON2133	1.5			★
Students develop foundational construction skills in workplace safety, construction math, hand and power tools, construction drawings, basic rigging, and material handling, with an emphasis on their use in plumbing. The course builds communication and employability skills, prepares students for further study in plumbing systems, and provides the opportunity to earn NCCER Core and OSHA Construction credentials upon successful completion of the requirements.					
Plumbing 1	CON2134	1.5	15 SSL, CM-AL	**Construction Fundamentals - Plumbing**	↯
Students learn plumbing safety, tool use, basic math, drawing interpretation, and techniques for measuring, cutting, and joining plastic, copper, cast iron, and steel piping. Through hands-on projects, students install drain, waste, and vent systems, water distribution systems, and plumbing fixtures while following code requirements and proper installation practices.					
Plumbing 2	CON2135A/B	1.5	15 SSL, CM-AL	**Plumbing 1**	↯
Students apply advanced piping calculations, interpret commercial drawings, and work with drainage systems, water heaters, fuel gas systems, and electrical circuits used in plumbing applications. Through hands-on projects, students install valves, test and troubleshoot drain, waste, vent, and water supply systems, and address structural considerations, insulation, and firestopping while following relevant codes and safety standards.					
CCL Plumbing Internship I DP	CON2136	1	CM-AL	**Construction Fundamentals - Plumbing**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing Internship II DP	CON2137	1	CM-AL	**CCL Plumbing Internship I DP**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing Apprenticeship I DP	CON2138	1	CM-AL	**Construction Fundamentals - Plumbing**	↯
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Plumbing Apprenticeship II DP	CON2139	1	CM-AL	**CCL Plumbing Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing Employer-Driven Capstone I DP	CON2140	1	CM-AL	**Construction Fundamentals - Plumbing**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing Employer-Driven Capstone II DP	CON2141	1	CM-AL	**CCL Plumbing Employer-Driven Capstone I**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing School-Based Enterprise I DP	CON2142	1	CM-AL	**Construction Fundamentals - Plumbing**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Plumbing School-Based Enterprise II DP	CON2143	1	CM-AL	**CCL Plumbing School-Based Enterprise I**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Plumbing Dual Enrollment	CON5060	1	CM-AL	**Construction Fundamentals - Plumbing**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN COMPUTER PROGRAMMING

AVAILABLE AT BETHESDA-CHEVY CHASE, MONTGOMERY BLAIR, JAMES HUBERT BLAKE, WINSTON CHURCHILL, CLARKSBURG, DAMASCUS, ALBERT EINSTEIN, GAITHERSBURG, WALTER JOHNSON, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, RICHARD MONTGOMERY, NORTHWEST, NORTHWOOD, PAINT BRANCH, POOLESVILLE, QUINCE ORCHARD, ROCKVILLE, SENECA VALLEY, SHERWOOD, SPRINGBROOK, WATKINS MILL, WHEATON, WALT WHITMAN, CHARLES WOODWARD, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	10-12	Certiport IT Specialist- Java

PROGRAM PURPOSE

The **Computer Programming Program of Study** provides students with the opportunity to develop foundational and advanced software development skills through hands-on programming experiences. Students learn to design, develop, test, and debug programs using industry-relevant programming languages such as Python and Java while applying computational thinking and problem-solving strategies. Preparation for industry-recognized certifications validates the technical skills students acquire throughout the program. Through project-based learning, work-based learning experiences, and capstone projects, students are prepared for entry-level programming roles as well as advanced studies in computer science, software engineering, and related fields at colleges, universities, or through apprenticeships and the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Computer Programming 1 - AP Comp Sci Prin	❑ Computer Programming 2 - AP Comp Sci Java	❑ Computer Programming 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Computer Programming 1 - AP Comp Sci Prin	❑ Computer Programming 2 - AP Comp Sci Java **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Computer Programming 1 » Computer Programming 2

COMPLETER OPTIONS:

- Computer Programming 1 » Computer Programming 2 » Computer Programming 3
- Computer Programming 1 » Computer Programming 2 » Career Connected Learning I (Internship)
- Computer Programming 1 » Computer Programming 2 » Career Connected Learning I (Apprenticeship)
- Computer Programming 1 » Computer Programming 2 » Career Connected Learning I (School-Based Enterprise)
- Computer Programming 1 » Computer Programming 2 » Career Connected Learning I (Employer-Driven Capstone Project)
- Computer Programming 1 » Computer Programming 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certiport IT Specialist: Java

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

COMPUTER PROGRAMMING

The **Computer Programming Program of Study** prepares students to design, develop, test, and maintain software applications using industry-relevant programming languages and tools. Students learn computational thinking, software development, web and mobile application design, and professional coding practices while building projects and portfolios that support college and career pathways in technology.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Computer Programming 1 - AP Comp Sci PrinA/B	ITC2089A/B	.5	CM-AL		ϟ
Students explore computer science through problem-solving, data, cybersecurity, the internet, and Python programming while preparing for the AP Computer Science Principles exam.					
Computer Programming 2 - AP Comp Sci JavaA/B	ITC2090A/B	.5	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
Students build advanced programming skills in Java, including object-oriented programming, algorithms, and data structures, while preparing for the AP Computer Science A exam and Certiport IT Specialist Java certification.					
Computer Programming 3	ITC2919A/B	.5	CM-AL	**CCL Computer Programming 2 - AP Comp Sci JavaA/B**	ϟ
Students apply their Python or Java skills to real-world, industry-connected projects while learning professional software development, Git, collaboration, and portfolio development.					
CCL Computer Programming Internship 1 DP	ITC2107	1	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming Internship 2 DP	ITC2108	1	CM-AL	**CCL Computer Programming Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming Apprenticeship 1 DP	ITC2109	1	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming Apprenticeship 2 DP	ITC2110	1	CM-AL	**CCL Computer Programming Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming School-Based Enterprise 1 DP	ITC2111	1	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming School-Based Enterprise 2 DP	ITC2112	1	CM-AL	**CCL Computer Programming School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Computer Programming Employer-Driven Capstone 1 DP	ITC2113	1	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Computer Programming Employer-Driven Capstone 2 DP	ITC2114	1	CM-AL	**CCL Computer Programming Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Computer Programming Dual Enrollment	ITC5000	1	CM-AL	**Computer Programming 1 - AP Comp Sci PrinA/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CYBERSECURITY

AVAILABLE AT MONTGOMERY BLAIR, GAITHERSBURG, SENECA VALLEY, SPRINGBROOK, WHEATON, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	10-12	CompTIA A+

PROGRAM PURPOSE

The **Cybersecurity Program of Study** provides students with the opportunity to develop technical and problem-solving skills focused on protecting networks, systems, and data from cyber threats. Students learn to configure, secure, monitor, and troubleshoot networked systems while applying industry-standard cybersecurity frameworks, tools, and best practices. Preparation for industry-recognized certifications validates the knowledge and skills students gain throughout the program. Through hands-on labs, simulated cyber defense activities, and work-based learning experiences, students are prepared for entry-level roles in cybersecurity and information technology as well as advanced studies in cybersecurity, computer science, and related fields at colleges, universities, apprenticeships, or through the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Cybersecurity 1	❑ Cybersecurity 2	❑ Cybersecurity 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Cybersecurity 1	❑ Cybersecurity 2 **AND** Internship **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Cybersecurity 1 » Cybersecurity 2

COMPLETER OPTIONS:

- Cybersecurity 1 » Cybersecurity 2 » Cybersecurity 3
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Internship)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Apprenticeship)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (School-based Enterprise)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Employer-Driven Capstone Project)
- Cybersecurity 1 » Cybersecurity 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- CompTIA A+

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CYBERSECURITY

The **Cybersecurity Program of Study** prepares students to protect computer systems, networks, and data from cyber threats. Students learn networking, digital security, ethical hacking, risk management, incident response, and cybersecurity operations through hands-on experiences aligned with industry certifications and real-world security practices.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Cybersecurity 1 A/B	ITC2095A/B	.5			★
Students learn the fundamentals of computer networks and cybersecurity, developing hands-on skills to set up, maintain, and protect digital networks.					
Cybersecurity 2 A/B	ITC2096A/B	.5	CM-AL	**Cybersecurity 1**	ϟ
Students build skills in configuring, managing, securing, and troubleshooting network infrastructure while learning to implement security measures and reduce cybersecurity risks.					
Cybersecurity 3A/B	ITC2097A/B	.5	CM-AL	**Cybersecurity 2**	ϟ
Students develop advanced cybersecurity skills in network security, threat mitigation, digital forensics, network monitoring, vulnerability assessment, and penetration testing.					
CCL Cybersecurity Internship 1 DP	ITC2123	1	CM-AL	**Cybersecurity 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Internship 2 DP	ITC2124	1	CM-AL	**CCL Cybersecurity Internship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Apprenticeship 1 DP	ITC2125	1	CM-AL	**Cybersecurity 1**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Apprenticeship 2 DP	ITC2126	1	CM-AL	**CCL Cybersecurity Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity School-Based Enterprise 1 DP	ITC2127	1	CM-AL	**Cybersecurity 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity School-Based Enterprise 2 DP	ITC2128	1	CM-AL	**CCL Cybersecurity School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Employer-Driven Capstone 1 DP	ITC2129	1	CM-AL	**Cybersecurity 1**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Cybersecurity Employer-Driven Capstone 2 DP	ITC2130	1	CM-AL	**CCL Cybersecurity Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Cybersecurity Dual Enrollment	ITC5030	1	CM-AL	**Cybersecurity 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CYBERSECURITY

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	10-12	CompTIA A+

PROGRAM PURPOSE

The **Cybersecurity Program of Study** provides students with the opportunity to develop technical and problem-solving skills focused on protecting networks, systems, and data from cyber threats. Students learn to configure, secure, monitor, and troubleshoot networked systems while applying industry-standard cybersecurity frameworks, tools, and best practices. Preparation for industry-recognized certifications validates the knowledge and skills students gain throughout the program. Through hands-on labs, simulated cyber defense activities, and work-based learning experiences, students are prepared for entry-level roles in cybersecurity and information technology as well as advanced studies in cybersecurity, computer science, and related fields at colleges, universities, apprenticeships, or through the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Cybersecurity 1 TP *(Semester A)* **AND** ❑ Cybersecurity 2 TP *(Semester B)*	❑ Cybersecurity 3 TP **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Cybersecurity 1 » Cybersecurity 2

COMPLETER OPTIONS:

- Cybersecurity 1 » Cybersecurity 2 » Cybersecurity 3
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Internship)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Apprenticeship)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (School-based Enterprise)
- Cybersecurity 1 » Cybersecurity 2 » Career Connected Learning I (Employer-Driven Capstone Project)
- Cybersecurity 1 » Cybersecurity 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- CompTIA A+

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CYBERSECURITY

The **Cybersecurity Program of Study** prepares students to protect computer systems, networks, and data from cyber threats. Students learn networking, digital security, ethical hacking, risk management, incident response, and cybersecurity operations through hands-on experiences aligned with industry certifications and real-world security practices.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Cybersecurity 1 TP	ITC2098	1.5	15 SSL		★
Students learn the fundamentals of computer networks and cybersecurity, developing hands-on skills to set up, maintain, and protect digital networks.					
Cybersecurity 2 TP	ITC2099	1.5	CM-AL, 15 SSL	**Cybersecurity 1**	↯
Students build skills in configuring, managing, securing, and troubleshooting network infrastructure while learning to implement security measures and reduce cybersecurity risks.					
Cybersecurity 3 TP	ITC2100	1.5	CM-AL	**Cybersecurity 2**	↯
Students develop advanced cybersecurity skills in network security, threat mitigation, digital forensics, network monitoring, vulnerability assessment, and penetration testing.					
CCL Cybersecurity Internship 1 DP	ITC2123	1	CM-AL	**Cybersecurity 1**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Internship 2 DP	ITC2124	1	CM-AL	**CCL Cybersecurity Internship 1 DP**	↯
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Apprenticeship 1 DP	ITC2125	1	CM-AL	**Cybersecurity 1**	↯
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Apprenticeship 2 DP	ITC2126	1	CM-AL	**CCL Cybersecurity Apprenticeship 1 DP**	↯
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity School-Based Enterprise 1 DP	ITC2127	1	CM-AL	**Cybersecurity 1**	↯
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity School-Based Enterprise 2 DP	ITC2128	1	CM-AL	**CCL Cybersecurity School-Based Enterprise 1 DP**	↯
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Employer-Driven Capstone 1 DP	ITC2129	1	CM-AL	**Cybersecurity 1**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cybersecurity Employer-Driven Capstone 2 DP	ITC2130	1	CM-AL	**CCL Cybersecurity Employer-Driven Capstone 1 DP**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Cybersecurity Dual Enrollment	ITC5030	1	CM-AL	**Cybersecurity 1 A/B**	↯
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN MACHINE LEARNING AND DATA SCIENCE

AVAILABLE AT NORTHWOOD AND CHARLES WOODWARD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	10-12	Google Data Analytics Professional Certificate

PROGRAM PURPOSE

The **Machine Learning & Data Science Program of Study** provides students with the opportunity to develop analytical, computational, and problem-solving skills through the collection, analysis, and interpretation of data. Students learn to use programming tools, statistical methods, and machine learning algorithms to uncover patterns, build predictive models, and solve real-world problems while applying ethical and responsible data practices. Preparation for industry-recognized certifications validates the technical knowledge students acquire throughout the program. Through hands-on projects, data-driven investigations, and career-connected learning experiences, students are prepared for entry-level roles in data analytics and artificial intelligence as well as advanced studies in data science, computer science, and related fields at colleges, universities, apprenticeships, or through the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Machine Learning & Data Science 1	❑ Machine Learning & Data Science 2	❑ Machine Learning & Data Science 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Machine Learning & Data Science 1	❑ Machine Learning & Data Science 2 **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Machine Learning & Data Science 1 » Machine Learning & Data Science 2

COMPLETER OPTIONS:

- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Machine Learning & Data Science 3
- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Career Connected Learning 1 (Internship)
- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Career Connected Learning 1 (Apprenticeship)
- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Career Connected Learning 1 (School-based Enterprise)
- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Career Connected Learning 1 (Employer-Driven Capstone Project)
- Machine Learning & Data Science 1 » Machine Learning & Data Science 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Google Data Analytics Professional Certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



MACHINE LEARNING & DATA SCIENCE

The **Machine Learning & Data Science** program of study prepares students to use data, artificial intelligence, and machine learning to solve real-world problems. Students develop skills in Python programming, data analysis, data visualization, predictive modeling, and responsible AI practices while exploring careers in data science and artificial intelligence.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Machine Learning and Data Science 1 A/B	ITC2092A/B	.5			★
Students learn the fundamentals of data science and machine learning through Python, data analysis, visualization, and introductory machine learning techniques.					
Machine Learning and Data Science 2 A/B	ITC2093A/B	.5	CM-AL	**Machine Learning and Data Science 1**	ϟ
Students build intermediate data science and machine learning skills through advanced algorithms, data visualization, and hands-on projects that solve real-world problems.					
Machine Learning and Data Science 3A/B	ITC2094A/B	.5	CM-AL	**Machine Learning and Data Science 2**	ϟ
Students explore advanced machine learning and AI concepts, including neural networks, ethical data use, computer vision, and natural language processing.					
CCL Machine Learning and Data Science Internship 1 DP	ITC2115	1	CM-AL	**Machine Learning and Data Science 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science Internship 2 DP	ITC2116	1	CM-AL	**CCL Machine Learning and Data Science Internship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science Apprenticeship 1 DP	ITC2117	1	CM-AL	**Machine Learning and Data Science 1**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Machine Learning and Data Science Apprenticeship 2 DP	ITC2118	1	CM-AL	**CCL Machine Learning and Data Science Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science School-Based Enterprise 1 DP	ITC2119	1	CM-AL	**Machine Learning and Data Science 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science School-Based Enterprise 2 DP	ITC2120	1	CM-AL	**CCL Machine Learning and Data Science School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science Employer-Driven Capstone 1 DP	ITC2121	1	CM-AL	**Machine Learning and Data Science 1**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Machine Learning and Data Science Employer-Driven Capstone 2 DP	ITC2122	1	CM-AL	**CCL Machine Learning and Data Science Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Machine Learning and Data Science Dual Enrollment	ITC5000	1	CM-AL	**Machine Learning and Data Science 1**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN NETWORKING SYSTEMS

AVAILABLE AT CLARKSBURG, DAMASCUS, GAITHERSBURG, QUINCE ORCHARD, SENECA VALLEY, SPRINGBROOK, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	10-12	CompTIA A+

PROGRAM PURPOSE

The **Networking Program of Study** offers students an opportunity to learn technical and problem-solving skills, while providing a comprehensive foundation of microcomputer and network technologies. Preparation for international industry credentials validate the knowledge students have attained. Hands-on laboratory experiences train students as entry-level technicians in the field of IT as well as for advanced studies in engineering and IT in colleges, universities, and the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Networking Systems 1	❑ Networking Systems 2	❑ Networking Systems 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Networking Systems 1	❑ Networking Systems 2 **AND** Internship **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Networking Systems 1 » Networking Systems 2

COMPLETER OPTIONS:

- Networking Systems 1 » Networking Systems 2 » Networking Systems 3
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning 1 (Internship)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning 1 (Apprenticeship)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning 1 (School-based Enterprise)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning 1 (Employer-Driven Capstone Project)
- Networking Systems 1 » Networking Systems 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- CompTIA A+

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



NETWORKING SYSTEMS

The **Networking Systems** program of study prepares students to design, configure, secure, and troubleshoot computer networks that support communication and information sharing. Students develop hands-on skills in networking technologies, cybersecurity, cloud networking, and network administration while preparing for industry-recognized certifications and careers in information technology.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Networking Systems 1 A/B	ITC2101A/B	.5			★
Students learn how computer networks operate, including IP addressing, switching, routing, network security, Ethernet, VLANs, and IPv6, while building skills that support preparation for certifications such as CompTIA A+.					
Networking Systems 2 A/B	ITC2102A/B	.5	CM-AL	**Networking Systems 1**	ϟ
Students develop intermediate networking skills in IP addressing, routing, network security, and troubleshooting while building knowledge that supports preparation for certifications such as CompTIA Network+.					
Networking Systems 3A/B	ITC2103A/B	.5	CM-AL	**Networking Systems 2**	ϟ
Students explore advanced networking technologies, including network security, wireless networks, IoT, and Software-Defined Networking (SDN), while learning to secure and manage modern network environments.					
CCL Networking Systems Internship 1 DP	ITC2131	1	CM-AL	**Networking Systems 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Internship 2 DP	ITC2132	1	CM-AL	**CCL Networking Systems Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Apprenticeship 1 DP	ITC2133	1	CM-AL	**Networking Systems 1**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Networking Systems Apprenticeship 2 DP	ITC2134	1	CM-AL	**CCL Networking Systems Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems School-Based Enterprise 1 DP	ITC2135	1	CM-AL	**Networking Systems 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems School-Based Enterprise 2 DP	ITC2136	1	CM-AL	**CCL Networking Systems School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Employer-Driven Capstone 1 DP	ITC2137	1	CM-AL	**Networking Systems 1**	ϟ
This course engages students in an Employer-Driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Employer-Driven Capstone 2 DP	ITC2138	1	CM-AL	**CCL Networking Systems Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Networking Systems Dual Enrollment	ITC5040	1	CM-AL	**Networking Systems 1**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN NETWORKING SYSTEMS

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Digital Technology	11-12	CompTIA A+

PROGRAM PURPOSE

The **Networking Systems** Program of Study offers students an opportunity to learn technical and problem-solving skills, while providing a comprehensive foundation of microcomputer and network technologies. Preparation for international industry credentials validate the knowledge students have attained. Hands-on laboratory experiences train students as entry-level technicians in the field of IT as well as for advanced studies in engineering and IT in colleges, universities, and the military. Articulated college credits may be earned through successful completion of the program.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Networking Systems 1 TP *(Semester A)* **AND** ❑ Networking Systems 2 TP *(Semester B)*	❑ Networking Systems 3 TP **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Networking Systems 1 » Networking Systems 2

COMPLETER OPTIONS:

- Networking Systems 1 » Networking Systems 2 » Networking Systems 3
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning I (Internship)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning I (Apprenticeship)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning I (School-based Enterprise)
- Networking Systems 1 » Networking Systems 2 » Career Connected Learning I (Employer-Driven Capstone Project)
- Networking Systems 1 » Networking Systems 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- CompTIA A+

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

NETWORKING SYSTEMS

The **Networking Systems Program of Study** prepares students to protect computer systems, networks, and data from cyber threats. Students learn networking, digital security, ethical hacking, risk management, incident response, and Networking Systems operations through hands-on experiences aligned with industry certifications and real-world security practices.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Networking Systems 1 TP	ITC2104	1.5	15 SSL		★
Students learn how computer networks operate, including IP addressing, switching, routing, network security, Ethernet, VLANs, and IPv6, while building skills that support preparation for certifications such as CompTIA A+.					
Networking Systems 2 TP	ITC2105	1.5	CM-AL	**Networking Systems 1**	ϟ
Students develop intermediate networking skills in IP addressing, routing, network security, and troubleshooting while building knowledge that supports preparation for certifications such as CompTIA Network+.					
Networking Systems 3 TP	ITC2106	1.5	CM-AL, 15 SSL	**Networking Systems 2**	ϟ
Students explore advanced networking technologies, including network security, wireless networks, IoT, and Software-Defined Networking (SDN), while learning to secure and manage modern network environments.					
CCL Networking Systems Internship 1 DP	ITC2131	1	CM-AL	**Networking Systems 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Internship 2 DP	ITC2132	1	CM-AL	**CCL Networking Systems Internship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Apprenticeship 1 DP	ITC2133	1	CM-AL	**Networking Systems 1**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Apprenticeship 2 DP	ITC2134	1	CM-AL	**CCL Networking Systems Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems School-Based Enterprise 1 DP	ITC2135	1	CM-AL	**Networking Systems 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems School-Based Enterprise 2 DP	ITC2136	1	CM-AL	**CCL Networking Systems School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Employer-Driven Capstone 1 DP	ITC2137	1	CM-AL	**Networking Systems 1**	ϟ
This course engages students in an Employer-Driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Networking Systems Employer-Driven Capstone 2 DP	ITC2138	1	CM-AL	**CCL Networking Systems Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Networking Systems Dual Enrollment	ITC5040	1	CM-AL	**Networking Systems 1**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN EARLY CHILDHOOD EDUCATION

AVAILABLE AT BETHESDA CHEVY CHASE, MONTGOMERY BLAIR, CLARKSBURG, DAMASCUS, GAITHERSBURG, WALTER JOHNSON, COL. ZADOK MAGRUDER, NORTHWEST, NORTHWOOD, PAINT BRANCH, QUINCE ORCHARD, ROCKVILLE, SENECA VALLEY, SHERWOOD, WATKINS MILL, WHEATON, WALT WHITMAN, CHARLES WOODWARD, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Education	10-12	Child Development Associate or ParaPathways (Formerly ParaPro)

PROGRAM PURPOSE

The **Early Childhood Education** program of study prepares students to work with young children while building skills in child development, teaching, communication, and classroom management. Through hands-on experiences, students learn how children grow and learn, design engaging age-appropriate activities, create safe and supportive learning environments, and develop skills needed for the Child Development Associate (CDA) credential and future careers in education and early childhood.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Early Childhood Education I	❑ Early Childhood Education II	❑ Early Childhood Education III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Early Childhood Education I	❑ Early Childhood Education II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Early Childhood Education I » Early Childhood Education II

COMPLETER OPTIONS:

- Early Childhood Education I » Early Childhood Education II » Early Childhood Education III
- Early Childhood Education I » Early Childhood Education II » Career Connected Learning 1 (Internship)
- Early Childhood Education I » Early Childhood Education II » Career Connected Learning 1 (Apprenticeship)
- Early Childhood Education I » Early Childhood Education II » Career Connected Learning 1 (School-based Enterprise)
- Early Childhood Education I » Early Childhood Education II » Career Connected Learning 1 (Employer-Driven Capstone Project)
- Early Childhood Education I » Early Childhood Education II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Child Development Associate or ParaPathways (Formerly ParaPro)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



EARLY CHILDHOOD EDUCATION

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Early Childhood Education I A/B	EDU2033A/B	.5	5 SSL, CM-AL		★
In this course, students will explore how children from birth to age five grow, learn, and develop while gaining hands-on skills in observation, positive guidance, family relationships, and creating safe, supportive learning environments.					
Early Childhood Education II A/B	EDU2034A/B	.5	5 SSL, CM-AL	**Early Childhood Education I A/B**	ϟ
This course builds on child development knowledge through hands-on teaching experiences through designing age-appropriate activities.					
Early Childhood Education III A/B	EDU2035A/B	.5	CM-AL	**Early Childhood Education II A/B**	ϟ
Early Childhood Education III prepares students to complete CDA requirements through hands-on experience. Students strengthen curriculum, observation, documentation, communication, and inclusive teaching skills while completing their CDA portfolio and experience hours.					
CCL Early Childhood Education Internship 1	EDU2036	1	CM-AL	**Early Childhood Education I**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Early Childhood Education Internship 2	EDU2037	1	CM-AL	**CCL Early Childhood Education Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Early Childhood Education Apprenticeship 1	EDU2038	1	CM-AL	**Early Childhood Education I A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Early Childhood Education Apprenticeship 2	EDU2039	1	CM-AL	**CCL Early Childhood Education Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Early Childhood Education School-Based Enterprise 1	EDU2040	1	CM-AL	**Early Childhood Education II A/B**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Early Childhood Education School-Based Enterprise 2 DP	EDU2041	1	CM-AL	**CCL Early Childhood Education School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Early Childhood Education Employer-Driven Capstone 1	EDU2042	1	CM-AL	**Early Childhood Education II A/B**	ϟ
This course engages students in an Employer-Driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Early Childhood Education Employer-Driven Capstone 2	EDU2043	1	CM-AL	**CCL Early Childhood Education Employer-Driven Capstone 1**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Early Childhood Education Dual Enrollment	EDU5030	1	CM-AL	**Early Childhood Education II A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN TEACHER ACADEMY OF MARYLAND (TAM)

AVAILABLE AT JAMES HUBERT BLAKE, JOHN F. KENNEDY, AND SPRINGBROOK

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Education	10-12	ParaPathways (Formerly ParaPro)

PROGRAM PURPOSE

The **Teacher Academy of Maryland** program prepares students for careers in education by exploring human development, teaching strategies, instructional technology, and educational leadership. Through hands-on projects and real-world experiences, students learn to design engaging instruction, support diverse learners, use data to improve teaching, and develop professional skills. Students also have opportunities to earn industry-recognized credentials and prepare for college, careers, and future work-based learning in education.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Teacher Academy of Maryland I	❑ Teacher Academy of Maryland II	❑ Teacher Academy of Maryland III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Teacher Academy of Maryland I	❑ Teacher Academy of Maryland II **AND** Internship **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Teacher Academy of Maryland I » Teacher Academy of Maryland II

COMPLETER OPTIONS:

- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Teacher Academy of Maryland III
- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Career Connected Learning 1 (Internship)
- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Career Connected Learning 1 (Apprenticeship)
- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Career Connected Learning 1 (School-based Enterprise)
- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Career Connected Learning 1 (Employer-Driven Capstone Project)
- Teacher Academy of Maryland I » Teacher Academy of Maryland II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- ParaPathways (Formerly ParaPro)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



TEACHER ACADEMY OF MARYLAND

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Teacher Academy of Maryland I A/B	EDU2044A/B	.5	5 SSL		★
Teacher Academy of Maryland I explores how people grow, learn, and develop from childhood through adulthood. Students discover how family, culture, and life experiences shape learning and behavior while building a foundation for a future career in education.					
Teacher Academy of Maryland II A/B	EDU2045A/B	.5	CM-AL	**Teacher Academy of Maryland I A/B**	ϟ
Teacher Academy of Maryland II introduces students to teaching strategies, lesson design, assessment, and educational technology. Students create engaging lessons for diverse learners and prepare for the ParaPro Assessment Certification.					
Teacher Academy of Maryland III A/B	EDU2046A/B	.5		**Teacher Academy of Maryland II A/B**	ϟ
Teacher Academy of Maryland III builds advanced teaching, leadership, and technology skills. Students design curriculum, use data to improve instruction, explore education leadership, and prepare fr the Praxis Core Assessment and future work-based learning.					
CCL Teacher Academy of Maryland Internship 1	EDU2047	1	CM-AL	**Teacher Academy of Maryland II A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland Internship 2	EDU2048	1	CM-AL	**CCL Teacher Academy of Maryland Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland Apprenticeship 1	EDU2049	1	CM-AL	**Teacher Academy of Maryland II A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland Apprenticeship 2	EDU2050	1	CM-AL	**CCL Teacher Academy of Maryland Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Teacher Academy of Maryland School-Based Enterprise 1	EDU2051	1	CM-AL	**Teacher Academy of Maryland II A/B**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland School-Based Enterprise 2 DP	EDU2052	1	CM-AL	**CCL Teacher Academy of Maryland School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland Employer-Driven Capstone 1	EDU2053	1	CM-AL	**Teacher Academy of Maryland II A/B**	ϟ
This course engages students in an Employer-Driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Teacher Academy of Maryland Employer-Driven Capstone 2	EDU2054	1	CM-AL	**CCL Teacher Academy of Maryland Employer-Driven Capstone 1**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Teacher Academy of Maryland Dual Enrollment	EDU5040	1	CM-AL	**Teacher Academy of Maryland II A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN FINANCIAL SERVICES & ACCOUNTING

AVAILABLE AT MONTGOMERY BLAIR, ALBERT EINSTEIN, GAITHERSBURG, COL. ZADOK MAGRUDER, NORTHWEST, AND PAINT BRANCH

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Financial Services	10-12	QuickBooks Certified User (Online)

PROGRAM PURPOSE

The **Financial Services & Accounting** program is a Career and Technical Education (CTE) pathway designed to provide high school students with a comprehensive understanding of financial systems, accounting principles, and business practices. This program integrates academic and technical knowledge with real-world applications to prepare students for postsecondary education and careers in the financial services industry. Students will develop skills in financial literacy, accounting procedures, data analysis, and the use of industry-standard technology. Instruction emphasizes ethical decision-making, problem-solving, and professional communication. Learning experiences include project-based activities, simulations, and opportunities for work-based learning.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE	*Not recommended*			
10TH GRADE		❑ Financial Services & Accounting I	❑ Financial Services & Accounting II	❑ Financial Services & Accounting III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
11TH GRADE			❑ Financial Services & Accounting I	❑ Financial Services & Accounting III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Financial Services & Accounting I » Financial Services & Accounting II

COMPLETER OPTIONS:

- Financial Services & Accounting I » Financial Services & Accounting II » Financial Services & Accounting III
- Financial Services & Accounting I » Financial Services & Accounting II » Career Connected Learning 1 (Internship)
- Financial Services & Accounting I » Financial Services & Accounting II » Career Connected Learning 1 (Apprenticeship)
- Financial Services & Accounting I » Financial Services & Accounting II » Career Connected Learning 1 (School-based Enterprise)
- Financial Services & Accounting I » Financial Services & Accounting II » Career Connected Learning 1 (Employer-Driven Capstone Project)
- Financial Services & Accounting I » Financial Services & Accounting II » AP Macro & Micro Economics FAME
- Financial Services & Accounting I » Financial Services & Accounting II » AP Business with Personal Finance FAME
- Financial Services & Accounting I » Financial Services & Accounting II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- QuickBooks Certified User (Online)
  Eligibility: Completion of Financial Services & Accounting II
  Typical Timing: End of Financial Services & Accounting III or Flex Course

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

FINANCIAL SERVICES & ACCOUNTING

The **Financial Services & Accoun**ting program prepares students to work with young children while building skills in child development, teaching, communication, and classroom management. Through hands-on experiences, students learn how children grow and learn, design engaging age-appropriate activities, create safe and supportive learning environments, and develop skills needed for the Child Development Associate (CDA) credential and future careers in education and early childhood.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Financial Services & Accounting I A/B	BMF2083A/B	.5			★
Introduces the financial services industry and fundamental accounting practices. Students explore banking, lending, insurance, and real estate and examine how these sectors contribute to economic stability.					
Financial Services & Accounting II A/B	BMF2084A/B	.5		**Financial Services & Accounting I A/B**	ϟ
Expands students' accounting knowledge and advanced spreadsheet skills. Students develop proficiency in expert-level spreadsheet functions, data analysis, and pivot tables in preparation for the QuickBooks Certified User exam.					
Financial Services & Accounting III A/B	BMF2085A/B	.5	5 SSL	**Financial Services & Accounting II A/B**	ϟ
Advances students' accounting expertise through accounting software applications. Students manage company files, process payroll, and generate financial reports to support strategic business decisions while preparing for the QuickBooks Certified User exam, if not already earned.					
CCL Financial Services & Accounting Internship 1 DP	BMF2086	1	CM-AL	**Financial Services & Accounting II A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting Internship 2 DP	BMF2087	1	CM-AL	**CCL Financial Services & Accounting Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting Apprenticeship 1 DP	BMF2088	1	CM-AL	**Financial Services & Accounting I A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Financial Services & Accounting Apprenticeship 2 DP	BMF2089	1	CM-AL	**CCL Financial Services & Accounting Apprenticeship 1 DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting Employer-Driven Capstone 1 DP	BMF2090	1	CM-AL	**Financial Services & Accounting I A/B**	ϟ
This course engages students in an Employer-Driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting Employer-Driven Capstone 2 DP	BMF2091	1	CM-AL	**CCL Financial Services & Accounting Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting School-Based Enterprise 1	BMF2092	1	CM-AL	**Financial Services & Accounting I A/B**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Financial Services & Accounting School-Based Enterprise 2 DP	BMF2093	1	CM-AL	**CCL Financial Services & Accounting School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Financial Services & Accounting Dual Enrollment	BMF5010	1	CM-AL	**Financial Services & Accounting I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					
AP Macroeconomics FAME	BMF2094	.5		**Financial Services & Accounting I A/B**	ϟ
Introduces college-level economic principles that explain how the economy functions as a whole. Students examine national income, inflation, unemployment, the financial sector, and fiscal and monetary policy. Data analysis and real-world applications develop understanding of economic stability and growth while preparing students for the AP exam.					
AP Microeconomics FAME	BMF2095	.5		**AP Macroeconomics FAME**	ϟ
Introduces college-level economic principles governing the decisions of individual consumers and businesses. Students examine market behavior, price determination, and the effects of government policies on economic efficiency and equity. Data interpretation, problem-solving, and analysis of real-world issues prepare students for the AP exam.					
AP Business & Personal Finance A/B FAME	BMF2096A/B	.5		**Financial Services & Accounting I A/B**	ϟ
Introduces college-level concepts in entrepreneurship, marketing, finance, accounting, and management alongside personal financial planning. Students apply budgeting, saving, borrowing, and investing strategies through case studies and hands-on projects. Developing a business concept and financial recommendations for a fictional household strengthens decision-making, communication, collaboration, and leadership skills.					

POS IN BIOMEDICAL SCIENCE

AVAILABLE AT CLARKSBURG, GAITHERSBURG, PAINT BRANCH, ROCKVILLE, AND WHEATON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	9-12	Certified Biotechnician Assistant through the BACE (Biotechnology Aptitude and Competency Exam)

PROGRAM PURPOSE

The **Biomedical Science** Program of Study prepares students to address complex biomedical challenges by immersing students in scientific principles, laboratory techniques, clinical practices, and professional skills essential for success in today's healthcare and biotechnology fields. This program ensures that students are well-prepared for advanced studies, industry-recognized credentials, and meaningful careers in healthcare, biotechnology, and biomedical research.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE	❑ Biomedical Science I	❑ Biomedical Science II	❑ Biomedical Science III	❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
10TH GRADE		❑ Biomedical Science I	❑ Biomedical Science II	❑ Biomedical Science III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Biomedical Science I	❑ Biomedical Science II (not eligible for BACE) **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Biomedical Science I » Biomedical Science II

COMPLETER OPTIONS:

- Biomedical Science I » Biomedical Science II » Biomedical Science III
- Biomedical Science I » Biomedical Science II » Career Connected Learning- Internship
- Biomedical Science I » Biomedical Science II » Career Connected Learning- Apprenticeship
- Biomedical Science I » Biomedical Science II » Career Connected Learning- School-Based Enterprise
- Biomedical Science I » Biomedical Science II » Career Connected Learning- Capstone
- Biomedical Science I » Biomedical Science II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Biotechnician Assistant- Biotility
  Prepared to sit for the Biotechnology Aptitude & Competency Exam (BACE) after Biomedical Science III

ADDITIONAL CREDENTIALS:
• Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

BIOMEDICAL SCIENCE

The **Biomedical Science** Program of Study is designed to prepare students for careers in medicine, biomedical science, and health sciences. Through hands-on, project-based learning, students explore forensic investigation, human anatomy and physiology, medical interventions, and/or biomedical innovations. Upon completing Biomedical Science 3, students sit for the Biotechnician Assistant Credentialing Exam (BACE) to demonstrate entry-level laboratory and technical competency. By mastering industry-standard laboratory techniques, data analysis, and professional workplace standards, the curriculum directly equips students with the practical skills needed to enter the healthcare and biomedical sciences workforce.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Biomedical Science 1 A/B	BHP2081A/B	.5			★
This introductory course gives students an overview of agricultural science and natural resources through hands-on activities, projects, and problem-solving. The course introduces students to biological, environmental, and technological principles.					
Biomedical Science 2 A/B	BHP2082A/B	.5	CM-AL	**Biomedical Science 1 A/B**	ϟ
Biomedical Science 2 explores human anatomy and physiology alongside homeostatic mechanics, while building clinical investigative skills to solve medical mysteries.					
Biomedical Science 3A/B	BHP2083A/B	.5	CM-AL	**Biomedical Science 2 A/B**	ϟ
Biomedical Science 3 serves as the capstone experience by synthesizing advanced content, such as molecular diagnostics, immunology, and independent biomedical research while preparing students to take the Biotechnician Assistant Credential Exam (BACE).					
CCL Biomedical Science Internship 1 DP	BHP2084	1	CM-AL	**Biomedical Science 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biomedical Science Internship 2 DP	BHP2085	1	CM-AL	**CCL Biomedical Science Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biomedical Science Registered Apprenticeship 1 DP	BHP2086	1	CM-AL	**Biomedical Science 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biomedical Science Registered Apprenticeship 2 DP	BHP2087	1	CM-AL	**CCL Biomedical Science Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biomedical Science School-Based Enterprise 1 DP	BHP2088	1	CM-AL	**Biomedical Science 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biomedical Science School-Based Enterprise 2 DP	BHP2089	1	CM-AL	**CCL Biomedical Science School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Biomedical Science Employer-Driven Capstone 1 DP	BHP2090	1	CM-AL	**Biomedical Science 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Biomedical Science Employer-Driven Capstone 2 DP	BHP2091	1	CM-AL	**CCL Biomedical Science Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Biomedical Science Dual Enrollment	BHP5000	1	CM-AL	**Biomedical Science 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN BIOTECHNOLOGY

AVAILABLE AT ALBERT EINSTEIN, JOHN F. KENNEDY, NORTHWEST, AND QUINCE ORCHARD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	Certified Biotechnician Assistant through the BACE (Biotechnology Aptitude and Competency Exam)

PROGRAM PURPOSE

The **Biotechnology** Program of Study prepares students to focus on research and development in the medical field, including biotechnology and scientific research. The program integrates core academic skills in biology, chemistry, and mathematics with industry-aligned standards to ensure students are prepared to pursue careers in biotechnology or further education in fields such as molecular biology, bioinformatics, or biomedical engineering.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Biotechnology I	❑ Biotechnology II	❑ Biotechnology III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Biotechnology I	❑ Biotechnology II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Biotechnology I » Biotechnology II

COMPLETER OPTIONS:

- Biotechnology I » Biotechnology II » Biotechnology III
- Biotechnology I » Biotechnology II » Career Connected Learning- Internship
- Biotechnology I » Biotechnology II » Career Connected Learning- Apprenticeship
- Biotechnology I » Biotechnology II » Career Connected Learning- School-Based Enterprise
- Biotechnology I » Biotechnology II » Career Connected Learning- Capstone
- Biotechnology I » Biotechnology II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Biotechnician Assistant- Biotility
  Prepared to sit for the Biotechnology Aptitude & Competency Exam (BACE) after Biotechnology II

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



BIOTECHNOLOGY

The **Biotechnology** Program of Study prepares students for medical research and development careers by integrating core academic skills in biology, chemistry, and mathematics with industry-aligned standards. Students will focus on foundational concepts in bioprocessing, safety, and solution preparation, followed by advanced upstream and downstream processing techniques. During Biotechnology 2, students demonstrate their technical competence by taking the industry-recognized Biotechnician Assistant Credentialing Exam (BACE). The program culminates in a capstone experience where students conduct advanced assays, explore bioethics, and collaborate with industry professionals to fully prepare for the workforce.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Biotechnology 1 A/B	BHP2092A/B	.5			★
Biotechnology 1 provides an introductory overview of bioprocessing and biomanufacturing by covering workplace safety, solution preparation, basic organic chemistry, bacterial culturing, and the regulatory frameworks governing biological product development.					
Biotechnology 2 A/B	BHP2093A/B	.5	CM-AL	**Biotechnology 1 A/B**	ϟ
Biotechnology 2 expands on upstream and downstream bioprocessing techniques for bringing a biologic product to market—including the production, purification, and assay validation of nucleic acids, proteins, and cell lines—to prepare students for the industry-recognized certification exam.					
Biotechnology 3A/B	BHP2094A/B	.5	CM-AL	**Biotechnology 2 A/B**	ϟ
Biotechnology 3 serves as the capstone course, leveraging foundational concepts from previous courses through literature reviews, bioethics exploration, advanced experimental assays, and direct work with industry professionals to prepare students for the workforce.					
CCL Biotechnology Internship 1 DP	BHP2095	1	CM-AL	**Biotechnology 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology Internship 2 DP	BHP2096	1	CM-AL	**CCL Biotechnology Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology Registered Apprenticeship 1 DP	BHP2097	1	CM-AL	**Biotechnology 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Biotechnology Registered Apprenticeship 2 DP	BHP2098	1	CM-AL	**CCL Biotechnology Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology School-Based Enterprise 1 DP	BHP2099	1	CM-AL	**Biotechnology 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology School-Based Enterprise 2 DP	BHP2100	1	CM-AL	**CCL Biotechnology School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology Employer-Driven Capstone 1 DP	BHP2101	1	CM-AL	**Biotechnology 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Biotechnology Employer-Driven Capstone 2 DP	BHP2102	1	CM-AL	**CCL Biotechnology Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Biotechnology Dual Enrollment	BHP5070	1	CM-AL	**Biotechnology 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CERTIFIED CLINICAL MEDICAL ASSISTANT

AVAILABLE AT ALBERT EINSTEIN, JOHN F. KENNEDY, PAINT BRANCH, QUINCE ORCHARD, ROCKVILLE, SENECA VALLEY, AND WATKINS MILL

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	Certified Clinical Medical Assistant (CCMA) through NHA

PROGRAM PURPOSE

The **Certified Clinical Medical Assistant (CCMA)** Program of Study prepares students with the clinical, administrative, and professional skills necessary for entry-level employment in healthcare and for continued postsecondary education in nursing, allied health, and other health science pathways. The program integrates rigorous academic content, hands-on clinical practice, and career-connected learning aligned to industry standards and labor market demand.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ CCMA I	❑ CCMA II	❑ CCMA III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ CCMA I	❑ CCMA II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- CCMA I » CCMA II

COMPLETER OPTIONS:

- CCMA I » CCMA II » CCMA III
- CCMA I » CCMA II » Career Connected Learning- Internship
- CCMA I » CCMA II » Career Connected Learning- Apprenticeship
- CCMA I » CCMA II » Career Connected Learning- School-Based Enterprise
- CCMA I » CCMA II » Career Connected Learning- Capstone
- CCMA I » CCMA II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Clinical Medical Assistant (CCMA) through the National Healthcareer Association (NHA)
  Eligibility to sit for the NHA CCMA Certification Exam (must be scheduled to earn HS diploma within 18 months)- [Update as of 10/1/2026]

ADDITIONAL CREDENTIALS:
• Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



CERTIFIED CLINICAL MEDICAL ASSISTANT

The **Certified Clinical Medical Assistant (CCMA)** Program of Study combines core academic concepts with comprehensive clinical and administrative training. Students master foundational medical terminology, diagnostic procedures, infection control, phlebotomy, electrocardiography (ECG), and electronic health record management. Following CCMA 2, students demonstrate their technical expertise and clinical readiness by sitting for the industry-recognized NHA Certified Clinical Medical Assistant (CCMA) exam. The pathway culminates in hands-on clinical experiences and work-based externships, ensuring students enter the healthcare workforce or postsecondary medical programs fully prepared.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Certified Clinical Medical Assistant 1 A/B	BHP2034A/B	.5			★
CCMA 1 focuses on foundational healthcare concepts, human anatomy, medical terminology, safety standards, and fundamental clinical skills, including measuring and recording vital signs.					
Certified Clinical Medical Assistant 2 A/B	BHP2035A/B	.5	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
CCMA 2 shifts focus toward hands-on clinical and laboratory procedures—including patient intakes, phlebotomy, diagnostic testing, minor exam assistance, and infection control—while launching targeted preparation for the NHA CCMA certification exam.					
Certified Clinical Medical Assistant 3A/B	BHP2038A/B	.5	CM-AL	**Certified Clinical Medical Assistant 2 A/B**	ϟ
CCMA 3 is a capstone course that deepens understanding of advanced system-based anatomy and physiology while preparing students for clinical internships or externships and transitioning them into professional healthcare practice.					
CCL CCMA Internship 1 DP	BHP2039	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA Internship 2 DP	BHP2040	1	CM-AL	**CCL CCMA Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL CCMA Registered Apprenticeship 1 DP	BHP2041	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA Registered Apprenticeship 2 DP	BHP2042	1	CM-AL	**CCL CCMA Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA School-Based Enterprise 1 DP	BHP2043	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA School-Based Enterprise 2 DP	BHP2044	1	CM-AL	**CCL CCMA School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA Employer-Driven Capstone 1 DP	BHP2045	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CCMA Employer-Driven Capstone 2 DP	BHP2046	1	CM-AL	**CCL CCMA Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Certified Clinical Medical Assistant Dual Enrollment	BHP5020	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CERTIFIED NURSING ASSISTANT

AVAILABLE AT JOHN F. KENNEDY, PAINT BRANCH AND SHERWOOD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	MD State Board of Nursing Certified Nursing Assistant (CNA-I)

PROGRAM PURPOSE

The **CNA-I** Program of Study prepares students to be eligible to sit for MBON CNA I certification by developing foundational healthcare knowledge, advanced patient care skills, and clinical expertise through classroom instruction, lab simulations, and work-based learning in healthcare facilities. This program also equips students to transition into advanced healthcare roles or postsecondary pathways, including Licensed Practical Nursing (LPN), Registered Nursing (RN), or other healthcare specialties.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ CNA I	❑ CNA II	❑ CNA III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ CNA I	❑ CNA II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- CNA I » CNA II

COMPLETER OPTIONS:

- CNA I » CNA II » CNA III
- CNA I » CNA II » Career Connected Learning- Internship
- CNA I » CNA II » Career Connected Learning- Apprenticeship
- CNA I » CNA II » Career Connected Learning- School-Based Enterprise
- CNA I » CNA II » Career Connected Learning- Capstone
- CNA I » CNA II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Maryland Board of Nursing Certified Nursing Assistant I (CNA-I)
- American Heart Association (AHA) Basic Life Support

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CERTIFIED NURSING ASSISTANT

The **Certified Nursing Assistant (CNA)** Program of Study integrates core academic knowledge with essential patient care skills under the supervision of licensed nursing professionals. Students gain comprehensive instruction in anatomy, infection control, vital signs measurement, and fundamental nursing techniques through classroom learning and hands-on laboratory practice. During CNA 2, students apply these concepts in real-world settings through hands-on clinicals in a medical facility, demonstrating their proficiency followed by the CNA-I exam to earn their Certified Nursing Assistant I (CNA-I) certification and licensure through the Maryland Board of Nursing. The pathway ensures graduates are fully prepared for immediate employment or further nursing education.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Certified Nursing Assistant 1 A/B	BHP2047A/B	.5			★
CNA 1 introduces students to foundational healthcare concepts and basic human anatomy, as well as fundamental nursing principles and clinical skills such as routine patient care, safety protocols, and vital sign measurement.					
Certified Nursing Assistant 2 A/B	BHP2048A/B	.5	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
CNA 2 focuses on clinical knowledge and patient care procedures, including hands-on clinical rotations, meeting the Maryland Board of Nursing (MBON) requirements to sit for the Maryland State CNA-I certification test.					
Certified Nursing Assistant 3A/B	BHP2050A/B	.5	CM-AL	**Certified Nursing Assistant 2 A/B**	ϟ
CNA 3 serves as the capstone experience, combining advanced professional development and career readiness with a deeper dive into human health and disease in order to solidify clinical decision-making and patient care knowledge.					
CCL CNA Internship 1 DP	BHP2051	1	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA Internship 2 DP	BHP2052	1	CM-AL	**CCL CNA Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA Registered Apprenticeship 1 DP	BHP2053	1	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA Registered Apprenticeship 2 DP	BHP2054	1	CM-AL	**CCL CNA Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA School-Based Enterprise 1 DP	BHP2055	1	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA School-Based Enterprise 2 DP	BHP2056	1	CM-AL	**CCL CNA School-Based Enterprise 1**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA Employer-Driven Capstone 1 DP	BHP2057	1	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL CNA Employer-Driven Capstone 2 DP	BHP2058	1	CM-AL	**CCL CNA Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
CNA Dual Enrollment	BHP5030	1	CM-AL	**Certified Nursing Assistant 1 A/B**	↯
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CERTIFIED NURSING ASSISTANT/CERTIFIED CLINICAL MEDICAL ASSISTANT

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	11-12	MD State Board of Nursing Certified Nursing Assistant (CNA-I) Certified Clinical Medical Assistant (CCMA)

PROGRAM PURPOSE

The **CNA-I and CCMA** Programs of Study equip students with essential clinical, administrative, and patient-care skills through classroom instruction, hands-on lab training, and work-based learning. Designed to meet industry standards and labor market demand, both programs prepare students for professional certification, entry-level healthcare roles, and postsecondary advancement in nursing and allied health. (Students may incur costs for one of the programs if both are being completed.)

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ CCMA I (DP) & CNA I (SP) *(Semester A)* **AND** ❑ CCMA II (DP) & CNA I (SP) *(Semester B)*	❑ CNA II w/ Clinicals *(Semester A)* **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- CNA I » CNA II
- CCMA I » CCMA II

COMPLETER OPTIONS:

- CNA I » CNA II » CNA III
- CNA I » CNA II » Career Connected Learning- Internship
- CNA I » CNA II » Career Connected Learning- Apprenticeship
- CNA I » CNA II » Career Connected Learning- School-Based Enterprise
- CNA I » CNA II » Career Connected Learning- Capstone
- CNA I » CNA II » Dual Enrollment
- CCMA I » CCMA II » CCMA III
- CCMA I » CCMA II » Career Connected Learning- Internship
- CCMA I » CCMA II » Career Connected Learning- Apprenticeship
- CCMA I » CCMA II » Career Connected Learning- School-Based Enterprise
- CCMA I » CCMA II » Career Connected Learning- Capstone
- CCMA I » CCMA II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL: (MCPS WILL PAY FOR ONE ONLY)

- Maryland Board of Nursing Certified Nursing Assistant I (CNA-I)
- American Heart Association (AHA) Basic Life Support
- Certified Clinical Medical Assistant (CCMA)
  Eligibility to sit for the NHA CCMA Certification Exam (must be scheduled to earn HS diploma within 18 months)- [Update as of 10/1/2026]

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CERTIFIED NURSING ASSISTANT/ CERTIFIED CLINICAL MEDICAL ASSISTANT

The **CNA-I and CCMA** Programs of Study equip students with essential clinical, administrative, and patient-care skills through classroom instruction, hands-on lab training, and work-based learning. Designed to meet industry standards and labor market demand, both programs prepare students for professional certification, entry-level healthcare roles, and postsecondary advancement in nursing and allied health. (Students may incur costs for one of the programs if both are being completed.)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Certified Clinical Medical Assistant 1A DP	BHP2035	1			★
CCMA 1 focuses on foundational healthcare concepts, human anatomy, medical terminology, safety standards, and fundamental clinical skills, including measuring and recording vital signs.					
Certified Clinical Medical Assistant 2B DP	BHP2037	1	CM-AL	**Certified Clinical Medical Assistant 1 A/B**	ϟ
CCMA 2 shifts focus toward hands-on clinical and laboratory procedures-including patient intakes, phlebotomy, diagnostic testing, minor exam assistance, and infection control-while launching targeted preparation for the NHA CCMA certification exam.					
Certified Nursing Assistant 2 A/B TP	BHP2049A/B	1.5	CM-AL	**Certified Nursing Assistant 1 A/B**	ϟ
CNA 2 focuses on clinical knowledge and patient care procedures, including hands-on clinical rotations, meeting the Maryland Board of Nursing (MBON) requirements to sit for the Maryland State CNA-I certification test.					

POS IN COSMETOLOGY

AVAILABLE AT GAITHERSBURG AND THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	Maryland (MD) State Board of Cosmetologists License (1500 hours) or Limited Hairstylist License (1200 hours) through PSI

For passing scores to be valid in the state of Maryland, both portions of the test are REQUIRED and must both be passed successfully within a two year period.

PROGRAM PURPOSE

The **Cosmetology** Program of Study prepares students with the technical skills, professional practices, and industry knowledge necessary for successful employment in the field of personal care services. The program provides comprehensive instruction and hands-on training aligned with state board requirements, enabling students to develop competency in hair design, skin care, nail technology, sanitation, safety, and client relations.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Cosmetology I	❑ Cosmetology II	❑ Cosmetology III (1200 Hours) (Semester A) **AND/OR** ❑ Cosmetology IV (1500 Hours) (Semester B) **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE	*Not recommended*			
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Cosmetology I » Cosmetology II » Cosmetology III (must have **1200 hours** and be **at least 17 years old**)

COMPLETER OPTIONS:

- Cosmetology I » Cosmetology II » Cosmetology III (must have **1200 hours** and be **at least 17 years old**)
- Cosmetology I » Cosmetology II » Career Connected Learning- Internship (1200 hours)
- Cosmetology I » Cosmetology II » Career Connected Learning- Apprenticeship (1200 hours)
- Cosmetology I » Cosmetology II » Career Connected Learning- School-Based Enterprise (1200 hours)
- Cosmetology I » Cosmetology II » Career Connected Learning- Employer-Driven Capstone (1200 hours)
- Cosmetology I » Cosmetology II » Dual Enrollment (1200 hours)

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Maryland (MD) State Board of Cosmetologists License (1500 hours) or Limited Hairstylist License (1200 hours)
  Must be at least 17 years old and meet hour requirements.

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

COSMETOLOGY

The **Cosmetology** Program of Study is a Career and Technical Education (CTE) pathway that requires high school students to complete 1,500 hours of instruction and practical salon experience. The curriculum covers hair care, skin and nail treatments, infection control, product chemistry, and salon business management. By completing this sequence, students meet high school graduation requirements and are fully prepared to pass the Maryland State Board of Cosmetologists licensing examinations for immediate entry into the professional beauty industry.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Cosmetology 1 A/B TP	BHP2023A/B	1.5	15 SSL		★
Cosmetology 1 introduces students to foundational cosmetology skills through classroom and lab instruction in hair, skin, and nail care, safe tool use, infection control, customer service, professionalism, and career exploration while students begin accumulating hours toward licensure.					
Cosmetology 2 A/B TP	BHP2024A/B	1.5	15 SSL, CM-AL	**Cosmetology 1 A/B**	ϟ
Cosmetology 2 builds on foundational skills through classroom instruction, lab practice, and work-based learning in hairstyling, chemical services, nail care, skincare, and wellness while emphasizing health and safety, customer service, professionalism, entrepreneurship, and salon management.					
Cosmetology 3A TP	BHP2025A	1.5	15 SSL, CM-AL	**Cosmetology 2 A/B**	ϟ
Cosmetology 3 develops advanced technical skills in hairstyling, chemical services, skincare, nail artistry, and wellness while preparing students for licensure through increasingly complex salon services and industry practices.					
Cosmetology 4B TP	BHP2025B	1.5	15 SSL, CM-AL	**Cosmetology 3A TP**	ϟ
Cosmetology 4 provides advanced technical and workplace preparation through mastery of hairstyling, chemical treatments, skincare, nail and wellness services, business and entrepreneurship, and work-based learning while preparing students for the Maryland Cosmetology License exam and entry into the workforce.					
CCL Cosmetology Internship 1 DP	BHP2026	1	CM-AL	**Cosmetology 3A TP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology Internship 2 DP	BHP2027	1	CM-AL	**CCL Cosmetology Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology Registered Apprenticeship 1 DP	BHP2028	1	CM-AL	**Cosmetology 3A TP**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology Registered Apprenticeship 2 DP	BHP2029	1	CM-AL	**CCL Cosmetology Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology School-Based Enterprise 1 DP	BHP2030	1	CM-AL	**Cosmetology 3A TP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology School-Based Enterprise 2 DP	BHP2031	1	CM-AL	**CCL Cosmetology School-Based Enterprise 1 DP**	ϟ
This course advances students' leadership and entrepreneurial skills through 125 hours of increased responsibility for managing and improving school-based business operations. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Cosmetology Employer-Driven Capstone 1 DP	BHP2032	1	CM-AL	**Cosmetology 3A TP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Cosmetology Employer-Driven Capstone 2 DP	BHP2033	1	CM-AL	**CCL Cosmetology Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Cosmetology Dual Enrollment	BHP5010	1	CM-AL	**Cosmetology 3A TP**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN PHARMACY TECHNICIAN

AVAILABLE AT CLARKSBURG, COL. ZADOK MAGRUDER, AND SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	Certified Pharmacy Technician (CPhT) through NHA

PROGRAM PURPOSE

The **Pharmacy Technician** Program of Study prepares students with the technical, administrative, and professional skills necessary for entry-level employment as a pharmacy technician and for continued postsecondary education in pharmacy, allied health, and related healthcare pathways. The program integrates rigorous academic instruction, hands-on learning, and career-connected opportunities aligned with industry standards, certification requirements, and labor market demand. The Maryland Board of Pharmacy sets forth regulations for pharmacy technician training programs, mandating a minimum of 160 hours of work experience to be completed within twelve months (update-10/1/26) of enrollment.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Pharmacy Technician I	❑ Pharmacy Technician II	❑ Pharmacy Technician III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Pharmacy Technician I	❑ Pharmacy Technician II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Pharmacy Technician I » Pharmacy Technician II » Pharmacy Technician III

COMPLETER OPTIONS:

- Pharmacy Technician I » Pharmacy Technician II » Pharmacy Technician III (must include **160 hours** of work experience in a pharmacy for licensure)
- Pharmacy Technician I » Pharmacy Technician II » Career Connected Learning- Internship
- Pharmacy Technician I » Pharmacy Technician II » Career Connected Learning- Apprenticeship
- Pharmacy Technician I » Pharmacy Technician II » Career Connected Learning- School-Based Enterprise
- Pharmacy Technician I » Pharmacy Technician II » Career Connected Learning- Employer-Driven Capstone
- Pharmacy Technician I » Pharmacy Technician II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Pharmacy Technician (CPhT) through the National Healthcareer Association (NHA)- ExCPT exam
  Eligibility to sit for the NHA CCMA Certification Exam (must be scheduled to earn HS diploma within 12 months)- [Update as of 10/1/2026]

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

PHARMACY TECHNICIAN

The **Pharmacy Technician** Program of Study prepares high school students for careers in retail, hospital, and clinical pharmacy settings. Throughout the program, students gain essential skills in pharmacology, drug calculations, compounding, sterile processing, pharmacy law, and ethics. At the conclusion of Pharmacy Technician 2, students are prepared to take the ExCPT Exam through NHA to earn their Certified Pharmacy Technician (CPhT) credential. Within the pathway, students have the opportunity to participate in an externship with CVS Pharmacy to gain hands-on, real-world clinical experience.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Pharmacy Technician 1 A/B	BHP2059A/B	.5			★
Pharmacy Technician 1 covers the foundational concepts of pharmacy practice, highlighting medical and pharmaceutical terminology, introductory pharmacology, legal and ethical standards, drug calculations, and essential operations.					
Pharmacy Technician 2 A/B	BHP2060A/B	.5	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
Pharmacy Technician 2 expands on foundational skills with advanced calculations, compounding techniques, inventory management, and prescription processing, while preparing students for the national ExCPT certification exam through the NHA.					
Pharmacy Technician 3A/B	BHP2061A/B	.5	CM-AL	**Pharmacy Technician 2 A/B**	ϟ
Pharmacy Technician 3 serves as the capstone experience, emphasizing hands-on clinical rotations (externships), advanced pharmacy operations, workplace ethics, and seamless transition into the professional pharmacy workforce.					
CCL Pharmacy Technician Internship 1 DP	BHP2062	1	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician Internship 2 DP	BHP2063	1	CM-AL	**CCL Pharmacy Technician Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician Registered Apprenticeship 1 DP	BHP2064	1	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician Registered Apprenticeship 2 DP	BHP2065	1	CM-AL	**CCL Pharmacy Technician Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician School-Based Enterprise 1 DP	BHP2066	1	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician School-Based Enterprise 2 DP	BHP2067	1	CM-AL	**CCL Pharmacy Technician School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Pharmacy Technician Employer-Driven Capstone 1 DP	BHP2068	1	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Pharmacy Technician Employer-Driven Capstone 2 DP	BHP2069	1	CM-AL	**CCL Pharmacy Technician Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Pharmacy Technician Dual Enrollment	BHP5040	1	CM-AL	**Pharmacy Technician 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN PHYSICAL REHABILITATION

AVAILABLE AT CLARKSBURG AND JOHN F. KENNEDY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Healthcare and Human Services	10-12	Certified Personal Trainer (CPT) through NSPA

PROGRAM PURPOSE

The **Physical Rehabilitation** Program of Study prepares students for careers in physical therapy, occupational therapy, athletic training, and related healthcare fields. This pathway integrates classroom learning, hands-on skill development, and real-world experiences through internships and apprenticeships.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Physical Rehab I	❑ Physical Rehab II	❑ Physical Rehab III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Physical Rehab I	❑ Physical Rehab II **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Registered Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Physical Rehabilitation I » Physical Rehabilitation II » Physical Rehabilitation III

COMPLETER OPTIONS:

- Physical Rehabilitation I » Physical Rehabilitation II » Physical Rehabilitation III
- Physical Rehabilitation I » Physical Rehabilitation II » Career Connected Learning- Internship
- Physical Rehabilitation I » Physical Rehabilitation II » Career Connected Learning- Apprenticeship
- Physical Rehabilitation I » Physical Rehabilitation II » Career Connected Learning- School-Based Enterprise
- Physical Rehabilitation I » Physical Rehabilitation II » Career Connected Learning- Employer-Driven Capstone
- Physical Rehabilitation I » Physical Rehabilitation II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Certified Personal Trainer (CPT)- Completed through NSPA (National Strength Professionals Association)
  Eligibility to sit for the NSPA Exam- must be scheduled to earn HS diploma and be at least 18 years old to work as a Personal Trainer

ADDITIONAL CREDENTIALS:

- Stop the Bleed

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

PHYSICAL REHABILITATION

The **Physical Rehabilitation** Program of Study prepares students for healthcare careers in physical therapy, occupational therapy, and athletic training by integrating classroom instruction with hands-on technical skill development. Coursework builds foundational knowledge in movement science, human anatomy, exercise physiology, and rehabilitative techniques aligned with NSPA standards. At the conclusion of Physical Rehabilitation 2, students demonstrate their professional competency by taking the NSPA Personal Trainer Certification exam. The pathway culminates in real-world clinical experience, allowing students to apply their training through local internships and work-based apprenticeships.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Physical Rehabilitation 1 A/B	BHP2070A/B	.5			★
Physical Rehabilitation 1 introduces foundational concepts of rehabilitation therapy, including body systems, human movement and mechanics, medical terminology, patient safety, and core principles of physical and occupational therapy.					
Physical Rehabilitation 2 A/B	BHP2071A/B	.5	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
Physical Rehabilitation 2 builds upon and dives deeper into foundational concepts and body systems with a focus on applied therapeutic techniques, patient intake and assessments, functional mobility assistance, exercise instruction, and targeted preparation for taking the Certified Personal Trainer (CPT) exam.					
Physical Rehabilitation 3A/B	BHP2072A/B	.5	CM-AL	**Physical Rehabilitation 2 A/B**	ϟ
Physical Rehabilitation 3 serves as the capstone experience, integrating advanced rehabilitation protocols, clinical externships or work-based learning, professional ethics, and career preparation for entry into the allied health workforce or higher education.					
CCL Physical Rehabilitation Internship 1 DP	BHP2073	1	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation Internship 2 DP	BHP2074	1	CM-AL	**CCL Physical Rehabilitation Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation Registered Apprenticeship 1 DP	BHP2075	1	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation Registered Apprenticeship 2 DP	BHP2076	1	CM-AL	**CCL Physical Rehabilitation Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation School-Based Enterprise 1 DP	BHP2077	1	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation School-Based Enterprise 2 DP	BHP2078	1	CM-AL	**CCL Physical Rehabilitation School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Physical Rehabilitation Employer-Driven Capstone 1 DP	BHP2079	1	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Physical Rehabilitation Employer-Driven Capstone 2 DP	BHP2080	1	CM-AL	**CCL Physical Rehabilitation Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Physical Rehabilitation Dual Enrollment	BHP5050	1	CM-AL	**Physical Rehabilitation 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CULINARY ARTS - DP

AVAILABLE AT DAMASCUS AND PAINT BRANCH

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Hospitality, Events, and Tourism	10-12	ServSafe Food Handler (Not on the IRC list) By the end of Culinary Arts 2: ServSafe Manager, Certified Fundamentals Cook, Optional Credentials (via the Flex Course options): American Culinary Federation (ACF) Certification and ProStart Certificate of Achievement

PROGRAM PURPOSE

The **Culinary Arts** program prepares students for success in the food service and hospitality industries through hands-on, industry-recognized training. Certified by the American Culinary Federation (ACF) and aligned with its curriculum, the program equips students with professional culinary, food safety, and management skills, leading to industry credentials and readiness to meet current workforce and employer standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES (DAMASCUS HS)

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Culinary Arts 1A/B	❑ Culinary Arts 2A/B	❑ Culinary Arts 3A/B **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone*
11TH GRADE			❑ Culinary Arts 1A/B	❑ Culinary Arts 2/AB
12TH GRADE	*Not recommended*			

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES (PAINT BRANCH HS)

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Culinary Arts 1 **AND** ❑ Culinary Arts 2	❑ Culinary Arts 3A/B	❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Culinary Arts 1 **AND** ❑ Culinary Arts 2	❑ Culinary Arts 3A/B **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR
• Culinary Arts 1 » Culinary Arts 2

COMPLETER OPTIONS:

- Culinary Arts 1 » Culinary Arts 2 » Culinary Arts 3
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Internship
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Registered Apprenticeship
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- School-Based Enterprise
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Employer-Driven Capstone
- Culinary Arts 1 » Culinary Arts 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- ServSafe Manager

ADDITIONAL CREDENTIALS:

- ServSafe Food Handler (Not on the IRC list)
- Certified Fundamentals Cook, American Culinary Federation (ACF) Certification
- ProStart Certificate of Achievement

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CULINARY ARTS

The **Culinary Arts** program provides students with the opportunity to explore many career opportunities available in the food-service industry. Students develop skills for employment based on industry standards. Students learn safety and sanitation principles, professional food-handling techniques, and quantity preparation through the use of commercial equipment and systems technology. Nutrition, menu planning, food cost control, and workplace skills are emphasized throughout the program. The American Culinary Federation (ACF) has certified this program.

DOUBLE TIME OPTION AT DAMASCUS HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Culinary Arts 1	HET2023A/B	.5			★
Culinary Arts 1 introduces students to the fundamentals of food safety, sanitation, and basic culinary techniques. Students will gain foundational skills in food preparation, kitchen safety, and nutrition while exploring career paths in the culinary and hospitality industries					
Culinary Arts 2	HET2024A/B	.5	5 SSL, CM-AL	**Culinary Arts 1**	ϟ
Building on the foundational skills of Culinary Arts 1, Culinary Arts 2 delves deeper into food safety, advanced cooking techniques, and menu planning. Students will explore more complex food preparation methods, including grilling, roasting, and baking, while practicing food presentation and portion control.					
Culinary Arts 3	HET2025A/B	.5	5 SSL, CM-AL	**Culinary Arts 2**	ϟ
Culinary Arts 3 focuses on advanced culinary techniques, menu development, and restaurant operations. Students will apply their skills to design and execute multi-course menus, using refined cooking methods and creative presentation techniques. The course emphasizes cost control, menu costing, and the use of seasonal ingredients, encouraging students to consider sustainability in their culinary practices.					
CCL Culinary Arts Capstone 1 DP	HET2028	1	CM-AL		ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Culinary Arts Capstone 2 DP	HET2029	1	CM-AL		ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Culinary Arts Internship 1 DP	HET2030	1	CM-AL		ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Culinary Arts Apprenticeship 2 DP	HET2031	1	CM-AL		ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Culinary Arts School-Based Enterprise 1 DP	HET2032	1	CM-AL		ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Culinary Arts School-Based Enterprise 2 DP	HET2033	1	CM-AL		ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

DOUBLE PERIOD OPTION AT PAINT BRANCH HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Culinary Arts 1	HET2017	1			★
Culinary Arts 1 introduces students to the fundamentals of food safety, sanitation, and basic culinary techniques. Students will gain foundational skills in food preparation, kitchen safety, and nutrition while exploring career paths in the culinary and hospitality industries.					

Culinary Arts 2	HET2018	1	10 SSL, CM-AL	**Culinary Arts 1**	ϟ
Building on the foundational skills of Culinary Arts 1, Culinary Arts 2 delves deeper into food safety, advanced cooking techniques, and menu planning. Students will explore more complex food preparation methods, including grilling, roasting, and baking, while practicing food presentation and portion control.					

Culinary Arts 3A/B	HET2019	1	10 SSL, CM-AL	**Culinary Arts 2**	ϟ
Culinary Arts 3 focuses on advanced culinary techniques, menu development, and restaurant operations. Students will apply their skills to design and execute multi-course menus, using refined cooking methods and creative presentation techniques. The course emphasizes cost control, menu costing, and the use of seasonal ingredients, encouraging students to consider sustainability in their culinary practices.					

POS IN CULINARY ARTS - TP

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Hospitality, Events, and Tourism	11-12	ServSafe Food Handler (Not on the IRC list) By the end of Culinary Arts 2: ServSafe Manager, Certified Fundamentals Cook, Optional Credentials (via the Flex Course options): American Culinary Federation (ACF) Certification and ProStart Certificate of Achievement

PROGRAM PURPOSE

The **Culinary Arts** program prepares students for success in the food service and hospitality industries through hands-on, industry-recognized training. Certified by the American Culinary Federation (ACF) and aligned with its curriculum, the program equips students with professional culinary, food safety, and management skills, leading to industry credentials and readiness to meet current workforce and employer standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Culinary Arts 1 **AND** ❑ Culinary Arts 2	❑ Culinary Arts 3A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Culinary Arts 1 » Culinary Arts 2 » Culinary Arts 3

COMPLETER OPTIONS:

- Culinary Arts 1 » Culinary Arts 2 » Culinary Arts 3
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Internship
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Registered Apprenticeship
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- School-Based Enterprise
- Culinary Arts 1 » Culinary Arts 2 » Career Connected Learning- Employer-Driven Capstone
- Culinary Arts 1 » Culinary Arts 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- ServSafe Manager

ADDITIONAL CREDENTIALS:

- ServSafe Food Handler (Not on the IRC list)
- Certified Fundamentals Cook, American Culinary Federation (ACF) Certification
- ProStart Certificate of Achievement

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CULINARY ARTS

The **Culinary Arts** program provides students with the opportunity to explore many career opportunities available in the food-service industry. Students develop skills for employment based on industry standards. Students learn safety and sanitation principles, professional food-handling techniques, and quantity preparation through the use of commercial equipment and systems technology. Nutrition, menu planning, food cost control, and workplace skills are emphasized throughout the program. The American Culinary Federation (ACF) has certified this program.

ONLY AT THOMAS EDISON HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Culinary Arts 1 TP	HET2020	1.5			★
Culinary Arts 1 introduces students to the fundamentals of food safety, sanitation, and basic culinary techniques. Students will gain foundational skills in food preparation, kitchen safety, and nutrition while exploring career paths in the culinary and hospitality industries					
Culinary Arts 2 TP	HET2021	1.5	15 SSL, CM-AL	**Culinary Arts 1**	ϟ
Building on the foundational skills of Culinary Arts 1, Culinary Arts 2 delves deeper into food safety, advanced cooking techniques, and menu planning. Students will explore more complex food preparation methods, including grilling, roasting, and baking, while practicing food presentation and portion control.					
Culinary Arts 3 TP	HET2022	1.5	15 SSL, CM-AL	**Culinary Arts 2**	ϟ
Culinary Arts 3 focuses on advanced culinary techniques, menu development, and restaurant operations. Students will apply their skills to design and execute multi-course menus, using refined cooking methods and creative presentation techniques. The course emphasizes cost control, menu costing, and the use of seasonal ingredients, encouraging students to consider sustainability in their culinary practices.					



POS IN HOTEL AND RESORT MANAGEMENT - SP

AVAILABLE AT ALBERT EINSTEIN, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, ROCKVILLE, SENECA VALLEY, SHERWOOD, SPRINGBROOK, AND WATKINS MILL

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Hospitality, Events, and Tourism	10-12	ServSafe Food Handler (Not on the 1A/BRC list) Hospitality & Tourism Specialist exam

PROGRAM PURPOSE

The **Hospitality and Tourism Management** Program (HTMP) prepares students for success in the fast-paced hospitality industry through hands-on learning, industry partnerships, and real-world experiences. Using the American Hotel and Lodging Educational Institute curriculum, students gain industry-recognized training and certifications while developing leadership, professionalism, and essential technical and soft skills. The program explores career pathways in hotel operations, tourism, and event planning, and prepares students for postsecondary education, industry credentials, and employment aligned with current industry standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Hotel and Resort Management 1A/B	❑ Hotel and Resort Management 2A/B	❑ Hotel and Resort Management 3A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Hotel and Resort Management 1A/B	❑ Hotel and Resort Management 2A/B **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Hotel and Resort Management 1 » Hotel and Resort Management 2

COMPLETER OPTIONS:

- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Hotel and Resort Management 3
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Internship
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Apprenticeship
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- School-Based Enterprise
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Employer-Driven Capstone
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Hospitality & Tourism Specialist exam

ADDITIONAL CREDENTIALS:

- ServSafe Food Handler (Not on the IRC list), Via The Flex Course Option - ServSafe Food Manager

PART-TIME SCHEDULE

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Hospitality, Events, and Tourism	11-12	ServSafe Food Handler (Not on the IRC list), Hospitality & Tourism Specialist exam

PROGRAM PURPOSE

The **Hospitality and Tourism Management** Program (HTMP) prepares students for success in the fast-paced hospitality industry through hands-on learning, industry partnerships, and real-world experiences. Using the American Hotel and Lodging Educational Institute curriculum, students gain industry-recognized training and certifications while developing leadership, professionalism, and essential technical and soft skills. The program explores career pathways in hotel operations, tourism, and event planning, and prepares students for postsecondary education, industry credentials, and employment aligned with current industry standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Hotel and Resort Management 1 **AND** ❑ Hotel and Resort Management 2	❑ Hotel and Resort Management 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Hotel and Resort Management 1 » Hotel and Resort Management 2

COMPLETER OPTIONS:

- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Hotel and Resort Management 3
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Internship
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Apprenticeship
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- School-Based Enterprise
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Career Connected Learning- Employer-Driven Capstone
- Hotel and Resort Management 1 » Hotel and Resort Management 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Hospitality & Tourism Specialist exam

ADDITIONAL CREDENTIALS:

- ServSafe Food Handler (Not on the IRC list), Via The Flex Course Option - ServSafe Food Manager

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

HOTEL & RESORT MANAGEMENT

The **Hotel & Resort Management** pathway is nationally recognized and developed by industry experts, including members of the American Hotel, Lodging Association, which offer the Certified Hospitality and Tourism Specialist credential. Students enrolled in the program build business and management skills related to the lodging and tourism industry.

ONLY AT THOMAS EDISON HS

COURSE T1A/BTLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQU1A/BS1A/BTES	GC★ H↗ or AL ϟ
Hotel and Resort Management 1	HET2003	1.5			★
Hotel and Resort Management 1 aligns to the Hospitality & Tourism Management Program (HTMP) Level 1. Students build foundations in guest service, front office operations, and food & beverage sanitation while developing professional communication and etiquette.					
Hotel and Resort Management 2	HET2004	1.5	15 SSL, CM-AL	**Hotel and Resort Management 1**	ϟ
Hotel and Resort Management 2 aligns to HTMP Level 2 and deepens skills in operations, supervision, quality assurance, revenue literacy, and risk/safety. Hospitality & Tourism Specialist (HTS) exam preparation plan with practice assessments and performance tasks.					
Hotel and Resort Management 3	HET2005	1.5	CM-AL	**Hotel and Resort Management 2**	ϟ
Students enrolled in this course will continue to expand their knowledge of the hospitality industry. They will build upon and practice their management leadership team-building and communication skills and focus on the leadership and managerial knowledge skills and abilities required for advancement in a management track in the hospitality and tourism industry.					



ONLY AT ALBERT EINSTEIN HS, COL. ZADOK MAGUDER HS, ROCKVILLE HS, SENECA VALLEY HS, SHERWOOD HS, SPRINGBROOK HS, WALTER JOHNSON HS, WATKINS MILL HS

COURSE T1A/BTLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQU1A/BS1A/BTES	GC★ H↗ or AL ϟ
Hotel and Resort Management 1 A/B	HET2000A/B	.5	5 SSL		★
Hotel and Resort Management 1 aligns to the Hospitality & Tourism Management Program (HTMP) Level 1. Students build foundations in guest service, front office operations, and food & beverage sanitation while developing professional communication and etiquette.					
Hotel and Resort Management 2 A/B	HET2001A/B	.5	5 SSL, CM-AL	**Hotel and Resort Management 1**	ϟ
Hotel and Resort Management 2 aligns to HTMP Level 2 and deepens skills in operations, supervision, quality assurance, revenue literacy, and risk/safety. Hospitality & Tourism Specialist (HTS) exam preparation plan with practice assessments and performance tasks.					
Hotel and Resort Management 3A/B	HET2002A/B	.5	CM-AL	**Hotel and Resort Management 2**	ϟ
Students enrolled in this course will continue to expand their knowledge of the hospitality industry. They will build upon and practice their management leadership team-building and communication skills and focus on the leadership and managerial knowledge skills and abilities required for advancement in a management track in the hospitality and tourism industry.					

COURSE T1A/BTLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQU1A/BS1A/BTES	GC★ H↗ or AL ϟ
CCL Hotel and Resort Management Registered Apprenticeship 1 DP	HET2009	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an 1A/Bndustry Recognized Credential. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management Registered Apprenticeship 2 DP	HET2010	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an 1A/Bndustry Recognized Credential. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management Employer-Driven Capstone 1 DP	HET2011	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management Employer-Driven Capstone 2 DP	HET2012	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management Internship 1 DP	HET2013	1	CM-AL	**CCL Hotel and Resort Management 2**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management Internship 2 DP	HET2014	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management School-Based Enterprise 1 DP	HET2015	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
CCL Hotel and Resort Management School-Based Enterprise 2 DP	HET2016	1	CM-AL	**Hotel and Resort Management 2**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options 1A/B & 2A/B (250 hrs) to meet the basic requirements of the experience.					
Hotel and Resort Management Dual Enrollment	HET5000	1	CM-AL	**Hotel and Resort Management**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN MANAGEMENT AND ENTREPRENEURSHIP

AVAILABLE AT MONTGOMERY BLAIR, JAMES HUBERT BLAKE, GAITHERSBURG, WALTER JOHNSON, JOHN F. KENNEDY, NORTHWOOD, SHERWOOD, AND CHARLES WOODWARD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Management and Entrepreneurship	10-12	Six Sigma White Belt

PROGRAM PURPOSE

The **Management and Entrepreneurship** Program of Study prepares students with foundational through advanced skills in business ownership, project management, and strategic leadership. Students develop competencies in entrepreneurship, digital marketing, financial management, data analysis, and process improvement using industry-standard tools and frameworks. The program emphasizes employability skills, ethical business practices, industry credentials, and career-connected learning experiences to prepare students for postsecondary education and careers as entrepreneurs, managers, and business leaders across industries.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Management and Entrepreneurship I	❑ Management and Entrepreneurship II	❑ Management and Entrepreneurship III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
11TH GRADE			❑ Management and Entrepreneurship I	❑ Management and Entrepreneurship III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Management and Entrepreneurship I » Management and Entrepreneurship II » Management and Entrepreneurship III

COMPLETER OPTIONS:

- Management and Entrepreneurship I » Management and Entrepreneurship II » Management and Entrepreneurship III
- Management and Entrepreneurship I » Management and Entrepreneurship II » Career Connected Learning- Internship
- Management and Entrepreneurship I » Management and Entrepreneurship II » Career Connected Learning- Apprenticeship
- Management and Entrepreneurship I » Management and Entrepreneurship II » Career Connected Learning- School-Based Enterprise
- Management and Entrepreneurship I » Management and Entrepreneurship II » Career Connected Learning- Employer-Driven Capstone
- Management and Entrepreneurship I » Management and Entrepreneurship II » Dual Enrollment
- Management and Entrepreneurship I » Management and Entrepreneurship II » AP Macro & Micro Economics FAME
- Management and Entrepreneurship I » Management and Entrepreneurship II » AP Business with Personal Finance FAME
- Management and Entrepreneurship I » Management and Entrepreneurship II » IB Business Management FAM

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Six Sigma White Belt Certification
  Eligibility: Completion of Management Entrepreneurship II
  Typical Timing: End of Management Entrepreneurship II

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



MANAGEMENT AND ENTREPRENEURSHIP

The **Management and Entrepreneurship** Program of Study develops students' understanding of how businesses are created, organized, and managed. Through practical projects, students explore business planning, operations, and financial decision-making while building leadership, communication, and problem-solving skills. The program prepares students for further education and careers in business management and entrepreneurship, including starting and managing their own businesses.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Management and Entrepreneurship I A/B	BMF2097A/B	.5			★
Introduces small business management, entrepreneurial thinking, business ownership, marketing, and financial literacy. Students organize, analyze, and present business data while developing communication, teamwork, and ethical decision-making skills. Projects and simulated business experiences provide practical application and support preparation for aligned industry certifications.					
Management and Entrepreneurship II A/B	BMF2098A/B	.5		**Management and Entrepreneurship I A/B**	↯
Expands students' business management skills through analysis of ownership models, legal and ethical responsibilities, and business growth strategies. Students apply project management tools and process improvement principles, including Six Sigma White Belt concepts. Team projects and simulated business challenges strengthen leadership and support preparation for industry-recognized certifications.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Management and Entrepreneurship III A/B	BMF2099A/B	.5		**Management and Entrepreneurship II A/B**	ϟ
Advances leadership, entrepreneurship, and business operations skills. Students examine how leadership styles influence team performance and organizational culture while applying advanced project management practices, adaptive approaches, and lifecycle processes. Hands-on projects strengthen teamwork and communication, culminating in a professional portfolio demonstrating readiness for industry credentials and business leadership roles.					
CCL Management and Entrepreneurship Internship 1 DP	BMF2100	1	CM-AL	**Management and Entrepreneurship I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship Internship 2 DP	BMF2101	1	CM-AL	**CCL Management and Entrepreneurship Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship Registered Apprenticeship 1 DP	BMF2102	1	CM-AL	**Management and Entrepreneurship 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship Registered Apprenticeship 2 DP	BMF2103	1	CM-AL	**CCL Management and Entrepreneurship Registered Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship Employer-Driven Capstone 1 DP	BMF2104	1	CM-AL	**Management and Entrepreneurship 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship Employer-Driven Capstone 2 DP	BMF2105	1	CM-AL	**CCL Management and Entrepreneurship Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship School-Based Enterprise 1 DP	BMF2106	1	CM-AL	**Management and Entrepreneurship 1 A/B DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Management and Entrepreneurship School-Based Enterprise 2 DP	BMF2107	1	CM-AL	**CCL Management and Entrepreneurship School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Management and Entrepreneurship Dual Enrollment	BMF5020	1	CM-AL	**Management and Entrepreneurship 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP Macroeconomics FAME	BMF2094	.5		**Management and Entrepreneurship 1 A/B DP**	ϟ
Introduces college-level economic principles that explain how the economy functions as a whole. Students examine national income, inflation, unemployment, the financial sector, and fiscal and monetary policy. Data analysis and real-world applications develop understanding of economic stability and growth while preparing students for the AP exam.					

AP Microeconomics FAME	BMF2095	.5		**AP Macroeconomics FAME**	ϟ
Introduces college-level economic principles governing the decisions of individual consumers and businesses. Students examine market behavior, price determination, and the effects of government policies on economic efficiency and equity. Data interpretation, problem-solving, and analysis of real-world issues prepare students for the AP exam.					

AP Business & Personal FinanceA/B FAME	BMF2096A/B	.5		**Management and Entrepreneurship 1 A/B DP**	ϟ
Introduces college-level concepts in entrepreneurship, marketing, finance, accounting, and management alongside personal financial planning. Students apply budgeting, saving, borrowing, and investing strategies through case studies and hands-on projects. Developing a business concept and financial recommendations for a fictional household strengthens decision-making, communication, collaboration, and leadership skills.					

IB Business Management FAME	BMF2119A/B	.5		**Management and Entrepreneurship 1 A/B DP**	ϟ
Explores business organization, entrepreneurship, human resources, finance and accounting, marketing, and operations management. Students examine how internal and external factors influence business decisions and apply management concepts to real-world situations through analysis and practical applications to strengthen critical thinking and decision-making skills while preparing for the IB Business Management exam.					

POS IN MARKETING SERVICES

AVAILABLE AT MONTGOMERY BLAIR, JAMES HUBERT BLAKE, GAITHERSBURG, AND NORTHWOOD

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Marketing and Sales	10-12	Six Sigma White Belt

PROGRAM PURPOSE

The **Marketing Services** Program of Study prepares students with foundational skills in marketing strategy, digital advertising, brand development, and data-driven decision-making. Students develop competencies in social media marketing, content creation, digital analytics, advertising platforms, and visual design using industry-standard tools. The program emphasizes ethical marketing practices, industry-recognized credentials, portfolio development, and career-connected learning experiences to prepare students for postsecondary education and careers in marketing, advertising, and digital media.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Marketing I	❑ Marketing II	❑ Marketing III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
11TH GRADE			❑ Marketing I	❑ Marketing III **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ AP Business with Personal Finance FAME **OR** ❑ AP Macro & Micro Economics FAME **OR** ❑ Dual Enrollment FAME **OR** ❑ IB Business Management FAME *(Where available)*
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Marketing I » Marketing II » Marketing III

COMPLETER OPTIONS:

- Marketing I » Marketing II » Marketing III
- Marketing I » Marketing II » Career Connected Learning- Internship
- Marketing I » Marketing II » Career Connected Learning- Apprenticeship
- Marketing I » Marketing II » Career Connected Learning- School-Based Enterprise
- Marketing I » Marketing II » Career Connected Learning- Employer-Driven Capstone
- Marketing I » Marketing II » Dual Enrollment
- Marketing I » Marketing II » AP Macro & Micro Economics FAME
- Marketing I » Marketing II » AP Business with Personal Finance FAME
- Marketing I » Marketing II » IB Business Management FAM

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Six Sigma White Belt Certification
  Eligibility: Completion of Marketing II
  Typical Timing: End of MarketingII

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

MARKETING SERVICES

The **Marketing Services** Program of Study develops students' understanding of how businesses promote products and services, connect with customers, and build brands. Through practical projects, students explore consumer behavior, advertising, digital marketing, and data analysis while designing marketing campaigns and applying ethical business practices. The program prepares students for further education and careers in marketing, advertising, sales, and related business fields.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Marketing 1 A/B	BMF2108A/B	.5			★
Introduces core marketing concepts, including audience, branding, and the content lifecycle. Students develop content calendars, create and adapt digital assets, and design brand-consistent graphics.					
Marketing 2 A/B	BMF2109A/B	.5		**Marketing 1 A/B**	ϟ
Expands students' marketing skills through data-informed strategy and brand asset production. Students collect, clean, and analyze data using analytics platforms and Excel/Google Sheets, answer marketing questions, and communicate findings through clear visuals and concise narratives.					
Marketing 3A/B	BMF2110A/B	.5		**Marketing 2 A/B**	ϟ
Advances students' skills in campaign strategy, data visualization, and content design across multiple platforms. Students use dashboard insights to refine creative decisions, budgets, and audience strategies while developing a cohesive portfolio aligned with their career goals.					
CCL Marketing Internship 1 DP	BMF2111	1	CM-AL	**Marketing 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing Internship 2 DP	BMF2112	1	CM-AL	**CCL Marketing Internship 1 DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing Apprenticeship 1 DP	BMF2113	1	CM-AL	**Marketing 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Marketing Apprenticeship 2 DP	BMF2114	1	CM-AL	**CCL Marketing Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing Employer-Driven Capstone 1 DP	BMF2115	1	CM-AL	**Marketing 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing Employer-Driven Capstone 2 DP	BMF2116	1	CM-AL	**CCL Marketing Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing School-Based Enterprise 1 DP	BMF2117	1	CM-AL	**Marketing 1 A/B DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Marketing School-Based Enterprise 2 DP	BMF2118	1	CM-AL	**CCL Marketing School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Marketing Dual Enrollment	BMF5030	1	CM-AL	**Marketing 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					
AP Macroeconomics FAME	BMF2094	.5		**Marketing 1 A/B DP**	ϟ
Introduces college-level economic principles that explain how the economy functions as a whole. Students examine national income, inflation, unemployment, the financial sector, and fiscal and monetary policy. Data analysis and real-world applications develop understanding of economic stability and growth while preparing students for the AP exam.					
AP Microeconomics FAME	BMF2095	.5		**AP Macroeconomics FAME**	ϟ
Introduces college-level economic principles governing the decisions of individual consumers and businesses. Students examine market behavior, price determination, and the effects of government policies on economic efficiency and equity. Data interpretation, problem-solving, and analysis of real-world issues prepare students for the AP exam.					
AP Business & Personal FinanceA/B FAME	BMF2096A/B	.5		**Marketing 1 A/B DP**	ϟ
Introduces college-level concepts in entrepreneurship, marketing, finance, accounting, and management alongside personal financial planning. Students apply budgeting, saving, borrowing, and investing strategies through case studies and hands-on projects. Developing a business concept and financial recommendations for a fictional household strengthens decision-making, communication, collaboration, and leadership skills.					

POS IN CRIMINAL JUSTICE AND LAW ENFORCEMENT

AVAILABLE AT MONTGOMERY BLAIR, WALTER JOHNSON, NORTHWOOD, QUINCE ORCHARD, SENECA VALLEY, AND SPRINGBROOK

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Public Service and Safety	10-12 Program entry begins in grade 10	National Incident Management System (NIMS) Certification

PROGRAM PURPOSE

Prepare students for careers and further education in criminal justice, law enforcement, and public safety through technical instruction, practical experiences, ethical decision-making, and career-connected learning. Students progress from the criminal justice system to law enforcement procedures, with optional study in community policing and legal processes.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Criminal Justice and Law Enforcement 1	❑ Criminal Justice and Law Enforcement 2	❑ Criminal Justice and Law Enforcement 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Criminal Justice and Law Enforcement 1	❑ Criminal Justice and Law Enforcement 2 **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Criminal Justice and Law Enforcement 3

COMPLETER OPTIONS:

- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Criminal Justice and Law Enforcement 3
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Internship
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Apprenticeship
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- School-Based Enterprise
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Employer-Driven Capstone
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- National Incident Management System (NIMS) Certification by the end of the course.

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CRIMINAL JUSTICE AND LAW ENFORCEMENT

The **Criminal Justice and Law Enforcement** program prepares students for careers and further education in criminal justice, law enforcement, and public safety. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experiences, students explore the principles, policies, and practices of the criminal justice system while developing critical thinking, communication, and problem-solving skills. Students apply their knowledge through simulations, structured debates, research projects, and field experiences with professionals in law enforcement and related fields.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Criminal Justice and Law Enforcement 1 TP	PGS2032	1.5			★
This foundational course introduces students to the criminal justice system, emphasizing the roles of police, courts, and corrections. Topics include ethical responsibilities, community policing, and public safety.					
Criminal Justice and Law Enforcement 2 TP	PGS2033	1.5	CM-AL	**Criminal Justice and Law Enforcement 1**	ϟ
Builds on foundational knowledge, focusing on law enforcement techniques such as traffic stops, patrol procedures, and report writing. Includes legal concepts like constitutional law and search and seizure protocols.					
Criminal Justice and Law Enforcement 3	PGS2034	1.5	CM-AL	**Criminal Justice and Law Enforcement 2**	ϟ
Focuses on "Community Policing and Legal Processes" with principles of community, emphasizing trust-building, diversity, and problemsolving. Students will explore crisis intervention techniques, mental health awareness, and conflict resolution, and Community and Crisis Response.					
CCL Criminal Justice and Law Enforcement Internship I DP	PGS2035	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Internship II DP	PGS2036	1	CM-AL	**CCL Criminal Justice and Law Enforcement Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Apprenticeship I DP	PGS2037	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Apprenticeship II DP	PGS2038	1	CM-AL	**CCL Criminal Justice and Law Enforcement Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Employer-Driven Capstone I DP	PGS2039	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Employer-Driven Capstone II DP	PGS2040	1	CM-AL	**CCL Criminal Justice and Law Enforcement Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Criminal Justice and Law Enforcement School-Based Enterprise I DP	PGS2041	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

CCL Criminal Justice and Law Enforcement School-Based Enterprise II DP	PGS2042	1	CM-AL	**CCL Criminal Justice and Law Enforcement School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Criminal Justice and Law Enforcement Dual Enrollment	PGS5010	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN CRIMINAL JUSTICE AND LAW ENFORCEMENT

THOMAS EDISON ONLY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Public Service and Safety	11-12 Program entry begins in grade 11	National Incident Management System (NIMS) Certification

PROGRAM PURPOSE

Prepare students for careers and further education in criminal justice, law enforcement, and public safety through technical instruction, practical experiences, ethical decision-making, and career-connected learning. Students progress from the criminal justice system to law enforcement procedures, with optional study in community policing and legal processes.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Criminal Justice and Law Enforcement 1 *(Semester A)* **AND** ❑ Criminal Justice and Law Enforcement 2 *(Semester B)*	❑ Criminal Justice and Law Enforcement 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Criminal Justice and Law Enforcement 3

COMPLETER OPTIONS:

- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Criminal Justice and Law Enforcement 3
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Internship
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Apprenticeship
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- School-Based Enterprise
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Career Connected Learning- Employer-Driven Capstone
- Criminal Justice and Law Enforcement 1 » Criminal Justice and Law Enforcement 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Criminal Justice and Law Enforcement 1:** CPR/First Aid, Law & Public Safety Introductory Level Competency (LPSILC), or Community Emergency Response Team (CERT) by the end of the course.
- **Criminal Justice and Law Enforcement 2:** National Incident Management System (NIMS) Certification by the end of the course.

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

CRIMINAL JUSTICE AND LAW ENFORCEMENT

The **Criminal Justice and Law Enforcement** program prepares students for careers and further education in criminal justice, law enforcement, and public safety. This regional program is offered at two hub locations: Thomas Edison High School of Technology (TEHST) and Seneca Valley High School. Students apply for admission and, once accepted, attend their home high school for part of the day and travel to their designated regional hub for the remaining part of the day. Through classroom instruction and hands-on experiences, students explore the principles, policies, and practices of the criminal justice system while developing critical thinking, communication, and problem-solving skills. Students apply their knowledge through simulations, structured debates, research projects, and field experiences with professionals in law enforcement and related fields.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Criminal Justice and Law Enforcement 1 A/B	PGS2029A/B	.5			★
This foundational course introduces students to the criminal justice system, emphasizing the roles of police, courts, and corrections. Topics include ethical responsibilities, community policing, and public safety.					
Criminal Justice and Law Enforcement 2 A/B	PGS2030A/B	.5	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
Builds on foundational knowledge, focusing on law enforcement techniques such as traffic stops, patrol procedures, and report writing. Includes legal concepts like constitutional law and search and seizure protocols.					
Criminal Justice and Law Enforcement 3A/B	PGS2031A/B	.5	CM-AL	**Criminal Justice and Law Enforcement 2 A/B**	ϟ
Focuses on "Community Policing and Legal Processes" with principles of community, emphasizing trust-building, diversity, and problemsolving. Students will explore crisis intervention techniques, mental health awareness, and conflict resolution, and Community and Crisis Response.					
CCL Criminal Justice and Law Enforcement Internship I DP	PGS2035	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Internship II DP	PGS2036	1	CM-AL	**CCL Criminal Justice and Law Enforcement Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Apprenticeship I DP	PGS2037	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Apprenticeship II DP	PGS2038	1	CM-AL	**CCL Criminal Justice and Law Enforcement Apprenticeship 1**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Employer-Driven Capstone I DP	PGS2039	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement Employer-Driven Capstone II DP	PGS2040	1	CM-AL	**CCL Criminal Justice and Law Enforcement Employer-Driven Capstone 1 DP**	ϟ

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement School-Based Enterprise I DP	PGS2041	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCL Criminal Justice and Law Enforcement School-Based Enterprise II DP	PGS2042	1	CM-AL	**CCL Criminal Justice and Law Enforcement School-Based Enterprise 1 DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Criminal Justice and Law Enforcement Dual Enrollment	PGS5010	1	CM-AL	**Criminal Justice and Law Enforcement 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN FIRE SCIENCE

AVAILABLE AT BETHESDA-CHEVY CHASE, MONTGOMERY BLAIR, JAMES HUBERT BLAKE, WINSTON CHURCHILL, CLARKSBURG, DAMASCUS, ALBERT EINSTEIN, GAITHERSBURG, WALTER JOHNSON, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, RICHARD MONTGOMERY, NORTHWEST, NORTHWOOD, QUINCE ORCHARD, PAINT BRANCH, POOLESVILLE, ROCKVILLE, SENECA VALLEY, SHERWOOD, SPRINGBROOK, WATKINS MILL, WHEATON, WALT WHITMAN, CHARLES WOODWARD, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Public Service and Safety	11-12	Fire Fighter I Certification (MFRI)

Students must meet eligibility requirements through a process that includes the Maryland Civil Service Exam.

PROGRAM PURPOSE

The **Fire Fighter** Program of Study prepares students for careers in firefighting, public safety, and related emergency services. It equips them with the academic and technical skills necessary to transition into postsecondary education or immediate employment.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Fire Fighter I A/B TP **AND** ❑ Fire Fighter II A/B TP	❑ Fire Fighter III A/B TP **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Fire Fighter I Certification (MFRI)

COMPLETER OPTIONS:

- Fire Fighter I » Fire Fighter II » Fire Fighter III
- Fire Fighter I » Fire Fighter II » Career Connected Learning I
- Fire Fighter I » Fire Fighter II » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Fire Fighter I Certification (MFRI)

ADDITIONAL CREDENTIALS:

- Hazardous Materials Awareness and Operations (NFPA) (End of Course I)
- Fire Fighter II Certification (MFRI)
- EMT (NREMT)
- EMR (MIEMSS)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

FIRE FIGHTER

The **Fire Fighter** Program of Study prepares students for careers in firefighting, public safety, and related emergency services. It equips them with the academic and technical skills necessary to transition into postsecondary education or immediate employment. The program of study is offered by the Montgomery County Fire and Rescue Service at the Montgomery County Public Safety Building. Students will travel from their home high school and participate in the Maryland Fire and Rescue Institute (MFRI) curriculum courses as part of a comprehensive preparation program that includes course work, physical training, career connected learning and training experiences. Students must meet eligibility requirements through a process that includes the Maryland Civil Service Exam.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Fire Fighter I A/B TP	PGS2055A/B	1.5			★
This foundational course introduces students to emergency services with a focus on firefighting roles and public safety.					
Fire Fighter II A/B TP	PGS2056A/B	1.5	CM-AL	**Fire Fighter I A/B TP**	ϟ
This course focuses on fire fighter I skills. The course prepares students for the Fire Fighter I certification exam.					
Fire Fighter III A/B TP	PGS2057A/B	1.5	CM-AL	**Fire Fighter II A/B TP**	ϟ
This course focuses on advanced firefighting techniques and leadership skills. The course prepares students for the Fire Fighter II certification exam.					
Fire Fighter Internship I DP	PGS2058	1	CM-AL	**Fire Fighter I A/B TP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Internship II DP	PGS2059	1	CM-AL	**Fire Fighter Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Apprenticeship I DP	PGS2060	1	CM-AL	**Fire Fighter II A/B TP**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Apprenticeship II DP	PGS2061	1	CM-AL	**Fire Fighter Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter School-Based Enterprise I DP	PGS2062	1	CM-AL	**Fire Fighter II A/B TP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter School-Based Enterprise II DP	PGS2063	1	CM-AL	**Fire Fighter School-Based Enterprise I DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Employer-Driven Project I DP	PGS2064	1	CM-AL	**Fire Fighter II A/B TP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Employer-Driven Project II DP	PGS2065	1	CM-AL	**Fire Fighter Employer-Driven Project I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Fire Fighter Dual Enrollment	PGS5030	1	CM-AL	**Fire Fighter II A/B TP**	ϟ
Dual Enrollment Opportunity for students in the Fire Fighter POS.					

POS IN EMERGENCY MEDICAL TECHNICIAN - MCPS SAFETY BUILDING

AVAILABLE AT BETHESDA-CHEVY CHASE, MONTGOMERY BLAIR, JAMES HUBERT BLAKE, WINSTON CHURCHILL, CLARKSBURG, DAMSCUS, ALBERT EINSTEIN, GAITHERSBURG, WALTER JOHNSON, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, RICHARD MONTGOMERY, NORTHWEST, NORTHWOOD, PAINT BRANCH, POOLESVILLE, QUINCE ORCHARD, ROCKVILLE, SHERWOOD, SPRINGBROOK, WATKINS MILL, WHEATON, WALT WHITMAN, CHARLES WOODWARD, AND THOMAS S. WOOTTON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Public Service and Safety	11-12	NFPA Hazardous-Materials Awareness, Emergency Medical Responder (EMR) Maryland Institute for Emergency Medical Services Systems (MIEMSS) Optional Credentials: Emergency Medical Technician (EMT) — National Registry of Emergency Medical Technicians (NREMT) / MIEMSS

PROGRAM PURPOSE

The **Emergency Medical Technician** Program of Study (POS) is designed to prepare students for careers in emergency medical services, public safety, and related fields. This POS offers students a rigorous academic and technical education, equipping them with the skills, knowledge, and hands-on experience necessary to transition seamlessly into postsecondary education, training programs, or immediate employment in emergency services. The program of study is offered by the Montgomery County Fire and Rescue Service at the Montgomery County Public Safety Building. Students will travel from their home high school and participate in the Maryland Fire and Rescue Institute (MFRI) curriculum courses as part of a comprehensive preparation program that includes course work, physical training, career-connected learning and training experiences. Students must meet eligibility requirements through a process that includes the Maryland Civil Service Exam.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Emergency Medical Technician I A/B **AND** ❑ Emergency Medical Technician II A/B	❑ Emergency Medical Technician III A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-Based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Emergency Medical Technician I Certification (MFRI)

COMPLETER OPTIONS:

- Emergency Medical Technician I » Emergency Medical Technician II » Emergency Medical Technician III

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- Emergency Medical Responder (EMR)

ADDITIONAL CREDENTIALS:

- Hazardous Materials Awareness and Operations (NFPA)
- OSHA 10-Hour General Industry Outreach Training
- Maryland Institute for Emergency Medical Services Systems (MIEMSS)
- Emergency Medical Technician (EMT) — National Registry of Emergency Medical Technicians (NREMT)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

WORK-BASED LEARNING EXPERIENCES PROGRESS FROM CAREER AWARENESS (COURSE I) TO CAREER PREPARATION AND IMMERSION (COURSES II, III, AND CCL).

EMERGENCY MEDICAL TECHNICIAN

The **Emergency Medical Technician** Program of Study (POS) is designed to prepare students for careers in emergency medical services, public safety, and related fields. The program of study is offered by the Montgomery County Fire and Rescue Service at the Montgomery County Public Safety Building. Students will travel from their home high school and participate in the Maryland Fire and Rescue Institute (MFRI) curriculum courses as part of a comprehensive preparation program that includes course work, physical training, career-connected learning and training experiences. Students must meet eligibility requirements through a process that includes the Maryland Civil Service Exam.

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Emergency Medical Technician I A/B TP	PGS2066A/B	1.5			★
This foundational course introduces students to emergency services, including EMT roles and public safety.					
Emergency Medical Technician II A/B TP	PGS2067A/B	1.5	CM-AL	**Emergency Medical Technician I A/B TP**	↯
This course focuses on EMT skills. The course prepares students for the Emergency Medical Services Systems certifications.					
Emergency Medical Technician III A/B TP	PGS2068A/B	1.5	CM-AL	**Emergency Medical Technician II A/B TP**	↯
This course focuses on advanced emergency medical techniques. This course prepares students for the National Registry of Emergency Medical Technicians EMT Exam.					
Emergency Medical Technician Internship I DP	PGS2069	1	CM-AL	**Emergency Medical Technician I A/B TP**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician Internship II DP	PGS2070	1	CM-AL	**Emergency Medical Technician Internship I DP**	↯
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician Apprenticeship I DP	PGS2071	1	CM-AL	**Emergency Medical Technician II A/B TP**	↯
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician Apprenticeship II DP	PGS2072	1	CM-AL	**Emergency Medical Technician Apprenticeship I DP**	↯
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an Industry Recognized Credential. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician School-Based Enterprise I DP	PGS2073	1	CM-AL	**Emergency Medical Technician II A/B TP**	↯
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician School-Based Enterprise II DP	PGS2074	1	CM-AL	**Emergency Medical Technician School-Based Enterprise I DP**	↯
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Emergency Medical Technician Employer-Driven Capstone I DP	PGS2075	1	CM-AL	**Emergency Medical Technician II A/B TP**	↯
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Emergency Medical Technician Employer-Driven Capstone II DP	PGS2076	1	CM-AL	**Emergency Medical Technician Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

Emergency Medical Technician Dual Enrollment	PGS5040	1	CM-AL	**Emergency Medical Technician II A/B TP**	ϟ
Dual Enrollment Opportunity for students in the Emergency Medical Technician POS					

POS IN JUNIOR RESERVE OFFICERS' TRAINING CORPS (JROTC)

AVAILABLE AT GAITHERSBURG, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, PAINT BRANCH, AND SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Public Service and Safety	10-12	ASVAB (Armed Services Vocational Aptitude Battery)

PROGRAM PURPOSE

Develop cadets' citizenship, leadership, personal responsibility, wellness, and career readiness through four levels of experiential learning. Instruction progresses from individual readiness to teamwork, applied leadership, and a capstone with peer mentoring. Each program must follow its military service component's curriculum and guidelines.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Military Leadership 1	❑ Military Leadership 2	❑ Military Leadership 3 **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Military Leadership 1	❑ Military Leadership 2 **AND** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Military Leadership 1 and Military Leadership 2

COMPLETER OPTIONS:

- Military Leadership 1 » Military Leadership 2 » Military Leadership 3
- Military Leadership 1 » Military Leadership 2 » Career Connected Learning- Internship
- Military Leadership 1 » Military Leadership 2 » Career Connected Learning- Apprenticeship
- Military Leadership 1 » Military Leadership 2 » Career Connected Learning- School-Based Enterprise
- Military Leadership 1 » Military Leadership 2 » Career Connected Learning- Employer-Driven Capstone
- Military Leadership 1 » Military Leadership 2 » Dual Enrollment

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- **Armed Services Vocational Aptitude Battery (ASVAB):** Measures developed abilities and helps predict future academic and occupational success in the military.

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



JUNIOR RESERVE OFFICERS TRAINING CORPS (JROTC)

The **Criminal Justice and Law Enforcement** program prepares students for careers and further education in criminal justice, law enforcement, and public safety. Through classroom instruction and hands-on experiences, students explore the principles, policies, and practices of the criminal justice system while developing critical thinking, communication, and problem-solving skills. Students apply their knowledge through simulations, structured debates, research projects, and field experiences with professionals in law enforcement and related fields.

COURSE T1TLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQU1S1TES	GC★ H↗ or AL ϟ
Military Leadership 1 A/B	PGS2043A/B	.5			★
Military Leadership 1 introduces cadets to the core mission, heritage, and values of the JROTC program. Emphasis is placed on developing individual responsibility, personal wellness, and fundamental military customs and courtesies.					
Military Leadership 2 A/B	PGS2044A/B	.5	CM-AL	**Military Leadership 1 A/B**	ϟ
Building on foundational knowledge, Military Leadership 2 shifts to small-unit dynamics and effective teamwork. Cadets explore communication models, both verbal and written, alongside followership roles that support mission success.					
Military Leadership 3A/B	PGS2045A/B	.5	CM-AL	**Military Leadership 2 A/B**	ϟ
Military Leadership 3 challenges cadets to apply leadership concepts in complex scenarios. Through comparative study of leadership styles and situational leadership exercises, students learn to adapt their approach to team needs.					
Military Leadership 4A/B	PGS2046A/B	.5	CM-AL	**Military Leadership 3A/B**	ϟ
Military Leadership 4 tasks cadets with strategic leadership, project management, and peer mentoring. Students develop comprehensive plans for a capstone initiative, such as a drill competition or community outreach event, addressing objectives, resources, and risk management.					
Military Leadership Internship I DP	PGS2047	1	CM-AL	**Military Leadership 1 A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership Internship II DP	PGS2048	1	CM-AL	**Military Leadership Internship I DP**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership Apprenticeship I DP	PGS2049	1	CM-AL	**Military Leadership 1 A/B**	ϟ
This course is for employer-selected students completing a 125-hour Registered or Youth Apprenticeship with an 1ndustry Recognized Credential. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					

COURSE T1TLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQU1S1TES	GC★ H↗ or AL ϟ
Military Leadership Apprenticeship II DP	PGS2050	1	CM-AL	**Military Leadership Apprenticeship I DP**	ϟ
This course builds upon the foundational apprenticeship experience through 125 hours of advanced technical training, increased workplace responsibility, and continued related instruction in a registered or youth apprenticeship with an 1ndustry Recognized Credential. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership Employer-Driven Capstone I DP	PGS2051	1	CM-AL	**Military Leadership 1 A/B**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership Employer-Driven Capstone II DP	PGS2052	1	CM-AL	**Military Leadership Employer-Driven Capstone I DP**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership School-Based Enterprise I DP	PGS2053	1	CM-AL	**Military Leadership 1 A/B**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership School-Based Enterprise II DP	PGS2054	1	CM-AL	**Military Leadership School-Based Enterprise I DP**	ϟ
This course requires 125 hours of hands-on experience operating a school-based business that delivers products or services to real customers. Students must complete CCL options 1 & 2 (250 hrs) to meet the basic requirements of the experience.					
Military Leadership Dual Enrollment	PGS5020	1	CM-AL	**Military Leadership 1 A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

POS IN AERONAUTICS, AVIATION, AEROSPACE SCIENCE AND TECHNOLOGY

AVAILABLE AT COL. ZADOK MAGRUDGER HS ONLY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Supply Chain and Transportation	10-12	FAA Part 107 UAS certificate

PROGRAM PURPOSE

This course will introduce students to basic aircraft and unmanned aircraft systems (UAS) structures and their major components, principles of flight, and the fundamental physical laws affecting flight. Students will learn about basic aerodynamics and forces that act on aircraft in flight. This course will provide students with a foundational understanding of basic physics concepts related to flight. Design characteristics will be covered, including concepts surrounding aircraft stability, controllability, and the effect of weight and balance on flight performance. Finally, the course will cover primary and secondary flight control systems.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Aeronautics, Aviation, Aerospace Science and Technology I A/B	❑ Aeronautics, Aviation, Aerospace Science and Technology II A/B	❑ Aeronautics, Aviation, Aerospace Science and Technology III A/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Aeronautics, Aviation, Aerospace Science and Technology I A/B	❑ Aeronautics, Aviation, Aerospace Science and Technology II A/B
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- AAA1 » AAA2

COMPLETER OPTIONS:

- AAA1 » AAA2 » AAA3
- AAA1 » AAA2 » Career Connected Learning- Internship
- AAA1 » AAA2 » Career Connected Learning- Apprenticeship
- AAA1 » AAA2 » Career Connected Learning- School-Based Enterprise
- AAA1 » AAA2 » Career Connected Learning- Employer-Driven Capstone

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- FAA Part 107 UAS certificate

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.

AERONAUTICS, AVIATION, AEROSPACE SCIENCE AND TECHNOLOGY

Aviation Technology Pilot pathway introduces students to safety, aerodynamics, aircraft systems, instrumentation, flight physiology and flight planning. Students can work toward obtaining a private pilot's license. The upper-level courses in the pathway will prepare students for postsecondary education and careers in the aviation and aerospace industry. This program is guided by the Aircraft Owners and Pilots Association (AOPA). Students will also study for The Federal Aviation Administration Part 107 certification exams.

ONLY AT COL. ZADOK MAGRUDER HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Aeronautics, Aviation, Aerospace Science and Technology 1 A/B	SCT2031A/B	.5			★
This course introduces students to the principles of aeronautics, aviation science, and aerospace technology. Emphasizing professional behavior, teamwork, and an understanding of the roles and responsibilities in aviation and aerospace industries. Topics include the history of aviation, fundamentals of flight, and an introduction to aerospace careers. AOPA High School Aviation STEM Standards Sets 1–3					
Aeronautics, Aviation, Aerospace Science and Technology 2 A/B	SCT2032A/B	.5	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 1 A/B**	ϟ
Building on the foundational knowledge acquired in Course 2A, this course focuses on aerospace systems and technologies, including aircraft systems, navigation, propulsion, and flight simulation. Students will engage in hands-on activities involving unmanned aircraft systems (drones) and gain insights into aerospace engineering concepts. The course is designed to prepare students for the FAA Part 107 Remote Pilot Certification, ensuring alignment with FAA standards					
Aeronautics, Aviation, Aerospace Science and Technology 3A/B	SCT2033A/B	.5	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 2 A/B**	ϟ
This course delves deeper into advanced aerodynamics, meteorology, and aviation operations. Students will analyze flight dynamics, weather systems impacting flight, and airport operations management. They will also engage in flight simulation training and explore realworld applications of aerospace technologies.					
CCL Aeronautics, Aviation, Aerospace Science and Technology Apprenticeship 1 DP	SCT2034	1	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 3A TP**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Aeronautics, Aviation, Aerospace Science and Technology Apprenticeship 2 DP	SCT2035	1	CM-AL	**CCL Aeronautics, Aviation, Aerospace Science and Technology Apprenticeship 1**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Aeronautics, Aviation, Aerospace Science and Technology Employer-Driven Capstone 1 DP	SCT2036	1	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 3A TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Aeronautics, Aviation, Aerospace Science and Technology Employer-Driven Capstone 2 DP	SCT2037	1	CM-AL	**CCL Aeronautics, Aviation, Aerospace Science and Technology Employer-Driven Capstone 1 DP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Aeronautics, Aviation, Aerospace Science and Technology Internship 1 DP	SCT2038	1	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 1 A/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Aeronautics, Aviation, Aerospace Science and Technology Internship 2 DP	SCT2039	1	CM-AL	**CCL Aeronautics, Aviation, Aerospace Science and Technology Internship 1 DP**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					

CCL Aeronautics, Aviation, Aerospace Science and Technology School-Based Enterprise 1 DP	SCT2040	1	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology 3A TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

CCL Aeronautics, Aviation, Aerospace Science and Technology School-Based Enterprise 2 DP	SCT2041	1	CM-AL	**CCL Aeronautics, Aviation, Aerospace Science and Technology School-Based Enterprise 1 DP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

POS IN AUTOMOTIVE COLLISION

AVAILABLE AT THOMAS EDISON

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Supply Chain and Transportation	11-12	I-CAR Industry Badge (5) Automotive Service Industry (ASE) (Minimum 1 certification) Painting and Refinishing (B2) Non-Structural Analysis and Damage Repair (B3) Damage Analysis and Estimating (B6)

PROGRAM PURPOSE

The **Autobody Collision Repair** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials to repair vehicle panels, vehicle prep, painting techniques, and welding techniques. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE				
11TH GRADE			❑ Introduction to Collision Repair **AND** ❑ Non-Structural Repair & Welding	❑ Painting and RefinishingA/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Non-Structural Repair & Welding

COMPLETER OPTIONS:

- Introduction to Collision Repair » Non-Structural Repair & Welding » Painting and Refinishing
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Registered Internship
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Apprenticeship
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- School-Based Enterprise
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Employer-Driven Capstone

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- I-CAR Academy introduction badges (5)

ADDITIONAL CREDENTIALS:

- Painting and Refinishing (B2)
- Non-Structural Analysis and Damage Repair (B3)
- Damage Analysis and Estimating (B6)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



AUTOMOTIVE COLLISION

The **Autobody Collision Repair** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials to repair vehicle panels, vehicle prep, painting techniques, and welding techniques. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the InterIndustry Conference on Auto Collision Repair (I-CAR) Academy standards.

ONLY AT THOMAS EDISON HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Introduction to Collision Repair	SCT2017	1.5			★
This foundational course introduces students to essential collision repair concepts and safety practices. Students will master workplace safety procedures, learn to identify different types of vehicle construction and materials, perform basic panel repairs, and develop fundamental damage analysis skills. Through hands-on experience with tool identification, personal protective equipment usage, and basic repair techniques, students build the essential knowledge required for advanced coursework in collision repair. The course emphasizes understanding safety protocols, environmental regulations, and basic repair. This course uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					
Non-Structural Repair & Welding	SCT2018	1.5	15 SSL, CM-AL	**Introduction to Collision Repair**	↯
Standards covered include an introduction to shop, personal, tool and equipment safety and proper usage; dent repair; rough and finish sanding; body panel replacement and alignment; minor frame alignment; application of paint systems; welding and cutting techniques; and employability and communication skills. This course is aligned with Automotive Service Excellence (ASE) Education Foundation Non-Structural standards and uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					
Painting and Refinishing	SCT2019A/B	1.5	CM-AL	**Non-Structural Repair & Welding**	↯
This specialized course prepares students by providing comprehensive training in automotive refinishing procedures. Students master surface preparation, paint mixing, color matching, and application techniques while learning to operate industry-standard spray equipment. The course covers the complete refinishing process from initial surface preparation through final detailing, including masking procedures, primer application, and clear coat finishing. Students learn to identify and correct paint defects, perform color blending, and execute quality control procedures. Emphasis is placed on understanding paint chemistry, proper application techniques, and environmental compliance while developing the skills needed for professional-quality refinishing work. This course uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					
CCL Collision Repair Apprenticeship 1 DP	SCT2023	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ↯
CCL Collision Repair Apprenticeship 2 DP	SCT2024	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Collision Repair Employer-Driven Capstone 1 DP	SCT2025	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair Employer-Driven Capstone 2 DP	SCT2026	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair Internship 1 DP	SCT2027	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Collision Repair Internship 2 DP	SCT2028	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Collision Repair School-Based Enterprise 1 DP	SCT2029	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair School-Based Enterprise 2 DP	SCT2030	1	CM-AL	**Non-Structural Repair & Welding**	↯
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

POS IN AUTOMOTIVE COLLISION DP

AVAILABLE AT GAITHERSBURG HS

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Supply Chain and Transportation	11-12	I-CAR Industry Badge (5) Automotive Service Industry (ASE) (Minimum 1 certification) Painting and Refinishing (B2) Non-Structural Analysis and Damage Repair (B3) Damage Analysis and Estimating (B6)

PROGRAM PURPOSE

The **Autobody Collision Repair** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials to repair vehicle panels, vehicle prep, painting techniques, and welding techniques. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Introduction to Collision Repair **AND** ❑ Non-Structural Repair & Welding	❑ Painting and RefinishingA/B **OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment	❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Introduction to Collision Repair **AND** ❑ Non-Structural Repair & Welding	❑ Painting and RefinishingA/B **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Introduction to Collision Repair » Non-Structural Repair & Welding

COMPLETER OPTIONS:

- Introduction to Collision Repair » Non-Structural Repair & Welding » Painting and Refinishing
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Registered Internship
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Apprenticeship
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- School-Based Enterprise
- Introduction to Collision Repair » Non-Structural Repair & Welding » Career Connected Learning- Employer-Driven Capstone

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- I-CAR Academy introduction badges (5)

ADDITIONAL CREDENTIALS:

- Painting and Refinishing (B2)
- Non-Structural Analysis and Damage Repair (B3)
- Damage Analysis and Estimating (B6)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



AUTOMOTIVE COLLISION

The **Autobody Collision Repair** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials to repair vehicle panels, vehicle prep, painting techniques, and welding techniques. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the InterIndustry Conference on Auto Collision Repair (I-CAR) Academy standards.

ONLY AT GAITHERSBURG HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Introduction to Collision Repair	SCT2020	1			★
This foundational course introduces students to essential collision repair concepts and safety practices. Students will master workplace safety procedures, learn to identify different types of vehicle construction and materials, perform basic panel repairs, and develop fundamental damage analysis skills. Through hands-on experience with tool identification, personal protective equipment usage, and basic repair techniques, students build the essential knowledge required for advanced coursework in collision repair. The course emphasizes understanding safety protocols, environmental regulations, and basic repair. This course uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					
Non-Structural Repair & Welding	SCT2021	1	10 SSL, CM-AL	**Introduction to Collision Repair**	↯
Standards covered include an introduction to shop, personal, tool and equipment safety and proper usage; dent repair; rough and finish sanding; body panel replacement and alignment; minor frame alignment; application of paint systems; welding and cutting techniques; and employability and communication skills. This course is aligned with Automotive Service Excellence (ASE) Education Foundation Non-Structural standards and uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					
Painting and Refinishing	SCT2022A/B	1	CM-AL	**Non-Structural Repair & Welding**	↯
This specialized course prepares students by providing comprehensive training in automotive refinishing procedures. Students master surface preparation, paint mixing, color matching, and application techniques while learning to operate industry-standard spray equipment. The course covers the complete refinishing process from initial surface preparation through final detailing, including masking procedures, primer application, and clear coat finishing. Students learn to identify and correct paint defects, perform color blending, and execute quality control procedures. Emphasis is placed on understanding paint chemistry, proper application techniques, and environmental compliance while developing the skills needed for professional-quality refinishing work. This course uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) Academy curriculum.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Collision Repair Apprenticeship 1 DP	SCT2023	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Collision Repair Apprenticeship 2 DP	SCT2024	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Collision Repair Employer-Driven Capstone 1 DP	SCT2025	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair Employer-Driven Capstone 2 DP	SCT2026	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair Internship 1 DP	SCT2027	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Collision Repair Internship 2 DP	SCT2028	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Collision Repair School-Based Enterprise 1 DP	SCT2029	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Collision Repair School-Based Enterprise 2 DP	SCT2030	1	CM-AL	**Non-Structural Repair & Welding**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

POS IN AUTOMOTIVE TECHNOLOGY - SINGLE CREDIT, DOUBLE PERIOD

AVAILABLE AT DAMASCUS, GAITHERSBURG, AND SENECA VALLEY HS ONLY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Supply Chain and Transportation	10-12	Engine Repair (A1), Automatic Transmission/Transaxle (A2) Manual Drive Train and Axles (A3), Suspension and Steering (A4) Brakes (A5), Electrical/Electronic Systems (A6) Heating and Air Conditioning (A7), Engine Performance (A8) Auto Maintenance & Light Repair (G1)

PROGRAM PURPOSE

The **Automotive Technology** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials and develop fundamental technical skills related to vehicles in the areas of mechanical, electrical, and diagnostics. Students are provided with instruction and hands-on experience in many Automotive Service Excellence (ASE) areas for maintenance and light repair. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the ASE Education Foundation MLR standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Automotive Basics A/B	❑ Automotive Technology 1: Maintenance and Light RepairA/B	❑ Automotive Technology 2: Automotive ServiceA/B
11TH GRADE			❑ Automotive Basics A/B	❑ Automotive Technology 1: Maintenance and Light RepairA/B
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR
• Automotive Basics » Automotive Technology 1
COMPLETER OPTIONS:
• Automotive Basics » Automotive Technology 1 » Automotive Technology 2

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:
• ASE Entry Level Maintenance & Light Repair (G-1)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



AUTOMOTIVE TECHNOLOGY

The **Automotive Technology** program develops students' technical, analytical, and communication skills. Students are provided instruction and hands-on experience in many Automotive Service Excellence (ASE) areas, including engine performance and repair, suspension and steering, brakes, electrical/electronic systems, and heating and air conditioning to develop their knowledge and skills in the maintenance and repair of modern vehicles.This course is aligned with the ASE Education Foundation MLR standards.

ONLY AT DAMASCUS AND SENECA VALLEY HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Automotive Basics A/B	SCT2000A/B	.5			★
This course is aligned with the Automotive Service Excellence (ASE) Education Foundation Maintenance and Light Repair (MLR) standards. Automotive Basics includes the knowledge of the basic automotive systems and the theory and principles of the components that make up each system, and how to service these systems. This course includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems					
Automotive Technology 1: Maintenance and Light RepairA/B	SCT2001A/B	.5	5 SSL	**Automotive Basics**	★
Students gain knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. Students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability skills.					
Automotive Technology 2: Automotive ServiceA/B	SCT2002A/B	.5	5 SSL, CM-AL	**Automotive Technology 1: Maintenance and Light RepairA/B**	ϟ
This course is aligned with the Automotive Service Excellence (ASE) Maintenance and Light Repair (MLR) standards. Standards covered include a refresher of personal, shop, tool and equipment safety; training is more advanced in vehicle maintenance; brake system repair; automotive electrical diagnosis, vehicle charging systems, suspension & steering system, engine performance & diagnosis, engine repair.					
CCL Automotive Technology Apprenticeship 1 DP	SCT2009	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Automotive Technology Apprenticeship 2 DP	SCT2010	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Automotive Technology Capstone 1 DP	SCT2011	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Capstone 2 DP	SCT2012	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course requires 250 hours of hands-on experience operating a school-based business that delivers products or services to real customers.					
CCL Automotive Technology Employer-Driven Capstone 1 DP	SCT2011	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Employer-Driven Capstone 2 DP	SCT2012	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Internship 1 DP	SCT2013	1	CM-AL	**Automotive Technology 1: Maintenance and Light RepairA/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Automotive Technology Internship 2 DP	SCT2014	1	CM-AL	**Automotive Technology 1: Maintenance and Light RepairA/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Automotive Technology School-Based Enterprise 1 DP	SCT2015	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology School-Based Enterprise 2 DP	SCT2016	1	CM-AL	**Automotive Technology 2: Automotive ServiceA/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

POS IN AUTOMOTIVE TECHNOLOGY DP

AVAILABLE AT DAMASCUS, THOMAS EDISON, GAITHERSBURG, AND SENECA VALLEY

CAREER CLUSTER	GRADES SERVED	CREDENTIAL
Supply Chain and Transportation	10-12	Engine Repair (A1), Automatic Transmission/Transaxle (A2) Manual Drive Train and Axles (A3), Suspension and Steering (A4) Brakes (A5), Electrical/Electronic Systems (A6) Heating and Air Conditioning (A7), Engine Performance (A8) Auto Maintenance & Light Repair (G1)

PROGRAM PURPOSE

The **Automotive Technology** program prepares students interested in pursuing a career in the automotive collision field. Students learn through authentic experiences as they use tools and materials and develop fundamental technical skills related to vehicles in the areas of mechanical, electrical, and diagnostics. Students are provided with instruction and hands-on experience in many Automotive Service Excellence (ASE) areas for maintenance and light repair. Students completing this program are eligible to receive recognized industry certifications. This course is aligned with the ASE Education Foundation MLR standards.

GRADE-LEVEL COURSE SEQUENCES AND PREREQUISITES

GRADE OF ENTRY	GRADE 9	GRADE 10	GRADE 11	GRADE 12
9TH GRADE				
10TH GRADE		❑ Automotive Basics **AND** ❑ Automotive Technology 1 Maintenance and Light Repair	❑ Automotive Technology 2A/B: Automotive Service **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment	❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
11TH GRADE			❑ Automotive Basics **AND** ❑ Automotive Technology 1 Maintenance and Light Repair	❑ Automotive Technology 2A/B: Automotive Service **AND/OR** ❑ Career Connected Learning ▪ *Internship* ▪ *Apprenticeship* ▪ *School-based Enterprise* ▪ *Employer-Driven Capstone* **OR** ❑ Dual Enrollment
12TH GRADE	*Not recommended*			

PROGRAM STATUS

CONCENTRATOR

- Automotive Basics » Automotive Technology 1

COMPLETER OPTIONS:

- Automotive Basics » Automotive Technology 1 » Automotive Technology 2
- Automotive Basics » Automotive Technology 1 » Career Connected Learning- Registered Internship
- Automotive Basics » Automotive Technology 1 » Career Connected Learning- Apprenticeship
- Automotive Basics » Automotive Technology 1 » Career Connected Learning- School-Based Enterprise
- Automotive Basics » Automotive Technology 1 » Career Connected Learning- Employer-Driven Capstone

INDUSTRY-RECOGNIZED CREDENTIALS

PRIMARY CREDENTIAL:

- ASE Entry Level Maintenance & Light Repair (G-1)

DUAL ENROLLMENT AND ALL CCL OPPORTUNITIES MUST ALIGN WITH THE CTE CORE COURSEWORK.



AUTOMOTIVE TECHNOLOGY

The **Automotive Technology** program develops students' technical, analytical, and communication skills. Students are provided instruction and hands-on experience in many Automotive Service Excellence (ASE) areas, including engine performance and repair, suspension and steering, brakes, electrical/electronic systems, and heating and air conditioning to develop their knowledge and skills in the maintenance and repair of modern vehicles.This course is aligned with the ASE Education Foundation MLR standards.

ONLY AT THOMAS EDISON HS

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Automotive Basics TP	SCT2003	1.5			★
This course is aligned with the Automotive Service Excellence (ASE) Education Foundation Maintenance and Light Repair (MLR) standards. Automotive Basics includes the knowledge of the basic automotive systems and the theory and principles of the components that make up each system, and how to service these systems. This course includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems.					
Automotive Technology 1: Maintenance and Light Repair TP	SCT2004	1.5	15 SSL	**Automotive Basics**	★
Students gain knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. Students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability skills.					
Automotive Technology 2: Automotive Service TPA/B	SCT2005A/B	1.5	5 SSL, CM-AL	**Automotive Technology 1: Maintenance and Light Repair TP**	ϟ
This course is aligned with the Automotive Service Excellence (ASE) Maintenance and Light Repair (MLR) standards. Standards covered include a refresher of personal, shop, tool and equipment safety; training is more advanced in vehicle maintenance; brake system repair; automotive electrical diagnosis, vehicle charging systems, suspension & steering system, engine performance & diagnosis, engine repair.					
CCL Automotive Technology Apprenticeship 1 DP	SCT2009	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					
CCL Automotive Technology Apprenticeship 2 DP	SCT2010	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course is for paid apprenticeships for students selected by employers to complete 250 hours of a Registered Apprenticeship or a Youth Apprenticeship and completion of an Industry Recognized Credential.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Automotive Technology Capstone 1 DP	SCT2011	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Capstone 2 DP	SCT2012	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course requires 250 hours of hands-on experience operating a school-based business that delivers products or services to real customers.					
CCL Automotive Technology Employer-Driven Capstone 1 DP	SCT2011	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Employer-Driven Capstone 2 DP	SCT2012	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology Internship 1 DP	SCT2013	1	CM-AL	**Automotive Technology 1: Maintenance and Light Repair TP**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Automotive Technology Internship 2 DP	SCT2014	1	CM-AL	**Automotive Technology 1: Maintenance and Light Repair TP**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
CCL Automotive Technology School-Based Enterprise 1 DP	SCT2015	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					
CCL Automotive Technology School-Based Enterprise 2 DP	SCT2016	1	CM-AL	**Automotive Technology 2: Automotive Service TP**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

THE CENTERS OF MONTGOMERY COUNTY

In addition to the highly engaging and rigorous cornerstone offerings at a student's local high school, MCPS offers programs in five centers in each of six regions. Centers include

- **ARTS Centers** for Aesthetics, Repertoire, Technique and Self-Expression
- **GLOBE Centers** for Global Learning, Opportunity, Biliteracy and Engagement
- **LEAD Centers** for Leadership, Empowerment, Action and Development
- **MED Centers** for Medical Exploration and Discovery
- **STEM Centers** for Science, Technology, Engineering and Math

Students apply to the center programs as part of the eighth grade high school possibility process. Students may apply to center programs within their home region.



ARTS CENTER

GLOBE CENTER

LEAD CENTER

MED CENTER

STEM CENTER

MCPS REGIONS

REGION	HIGH SCHOOL	REGION	HIGH SCHOOL
SOUTHERN	Bethesda-Chevy Chase Montgomery Blair Albert Einstein Northwood Walt Whitman	**CENTRAL**	Winston Churchill Richard Montgomery Rockville Thomas S. Wootton
EASTERN	James Hubert Blake Paint Branch Sherwood Springbrook	**CENTRAL NORTH**	Gaithersburg Col. Zadok Magruder Quince Orchard Watkins Mill
CENTRAL SOUTH	Walter Johnson John F. Kennedy Wheaton Charles W. Woodward	**NORTHERN**	Clarksburg Damascus Northwest Poolesville Seneca Valley

ANIMATION & GAME DESIGN

AVAILABLE AT JAMES HUBERT BLAKE, GAITHERSBURG, AND CHARLES WOODWARD

Bring virtual worlds to life. The Animation & Game Design Program empowers students to design immersive 2D and 3D experiences across gaming, film, television, virtual reality, and interactive media. As part of the MCPS ARTS Center, students master foundational drawing, specialized digital media tools, and real-world arts projects—building competitive portfolios that pave the way to top colleges and creative industry careers.

The Animation and Game Design Center Program is available in the following regions:

- Eastern Region at **James Hubert Blake High School**
- Central South Region at **Charles Woodward High School**
- Central North Region at **Gaithersburg High School**

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ AP Computer Science Principles A/B (Tech Credit)	■ Animation & Game Development I	■ Animation & Game Development II	■ Animation & Game Development III **OR** ■ Career Connected Learning
■ Digital Art 1	■ Digital Art 2	■ Digital Art 3	■ Digital Art 4
		■ Art or Computer Science Elective Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Art or Computer Science Elective Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

ART/COMPUTER SCIENCE ELECTIVES

Animation 2 Animation 3 Animation 4	Animation and Game Development Dual Enrollment	CCL Animation and Game Development Employer-Driven Capstone 1

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Animation and Game Development I A/B	AMC2020A/B	.5			★
Introduces digital storytelling, 2D animation, and basic game design. Students create storyboards and scripts, transform drawings into animated sequences, and incorporate motion, sound, and interactive elements using an industry-standard game engine. Description goes here 2-3 sentences.					
Animation and Game Development II A/B	AMC2021A/B	.5		**Animation and Game Development I A/B**	ϟ
Expands students' 2D animation skills and introduces 3D asset creation for games. Students model, texture, and optimize characters and environments, integrate original assets into a game engine, and develop player interactions, user interfaces, and physics through scripting or visual programming.					
Animation and Game Development III A/B	AMC2022A/B	.5		**Animation and Game Development II A/B**	ϟ
Develops advanced animation and game production skills through a collaborative capstone project. Students apply advanced modeling, rigging, shaders, and cinematic techniques while integrating audio and user interfaces into a polished, playable game segment. Emphasis includes project management, peer review, performance optimization, and portfolio development.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Arts Entrepreneurship and Management	AMC2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					
AP Computer Science Principles A/B (TE)	ITC2084A/B	.5	CM AP TE		ϟ
This course, offered in partnership with Code.org, advances student understanding of the central ideas of computer science, engaging students in activities that show how computing changes the world. Through a focus on creativity, students explore technology as a means for solving computational problems, examining computer science's relevance to and impact on the world today.					
Digital Art 1 A/B	ART2069A/B	.5	FA		★
This course explores digital hardware and software platforms that reflect contemporary practices and industry standards to prepare for college and career. Students use the computer as a tool to create rastor- and vector-based artworks. Students discuss ethical and safety issues in the use of digital media as a tool for visual communication. Creative problem-solving skills are developed as students discover how formal qualities and compositional devices are used to make aesthetic choices in digital artwork that communicates narrative. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of digital artworks as text.					
Digital Art 2 A/B	ART2070A/B	.5	CM FA	**Digital Art 1**	ϟ
This advanced level course provides opportunities to refine and master digital hardware and software platforms that reflect contemporary practices and industry standards to prepare for college and career. Students will experiment compositional structures, concepts, and artmaking approaches to communicate personal perceptions in original works. They will analyze how visual imagery influences understanding of and responses to the world. Students develop critical thinking skills when interpreting and evaluating digital artwork by synthesizing both technical and aesthetic characteristics of the media. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of digital artworks as text.					
Digital Art 3A/B	ART2059A/B	.5	CM FA	**Digital Art 2**	ϟ
Students are provided with authentic and meaningful opportunities to develop literacy skills in a contemporary age becoming increasingly visual in its communication. This course requires students to refine and master digital hardware and software platforms that reflect contemporary practices and industry standards to prepare for college and career. This course is investigative and performance-based in nature. Students will generate creative problems to focus lines of inquiry that result in a portfolio of digital art and design products. Writing, academic language, and critical-thinking skills are developed through artist statements, critiques, and the close reading of artworks as text.					
Adv Digital Art 4A/B	ART2060A/B	.5	CM FA	**Digital Art 3**	ϟ
This course prepares students for college and career experiences in digital media by requiring students to communicate their personal voice through independent experimentation and refinement of digital hardware and software tools that reflect contemporary practices and industry standards. Students will initiate research, practice, and collaboration toward the completion of a body of work that reflects their personal voice as an artist and designer. Writing, academic language, and critical-thinking skills are developed through artist statements, critiques, and the close reading of artworks as text.					

COMMUNICATION ARTS PROGRAM (CAP)

AVAILABLE AT MONTGOMERY BLAIR HS

Shape the future of media and message. CAP equips students with the skills, confidence, and creative vision to command the spotlight across digital, broadcast, and print platforms. Integrating deep humanities study with real-world media production, our interdisciplinary curriculum prepares confident communicators to lead in college and dynamic creative industries.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Honors English 9 - Center Program	■ Honors English 10 - Center Program	■ AP Language & Composition	■ Honors English 12 **OR** ■ AP Literature & Composition
■ Honors US History - Center Program	■ AP US Government (NSL)	■ AP World History	■ CAP Senior Seminar (S1) & Elective (S2)
■ CAP Photography (SM1) & CAP Filmmaking (S2)	■ CAP Journalism	■ CAP AP Seminar (S2)	
■ CAP Drama	■ CAP Newswriting (SM1) & CAP TV Production (S2)		

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Journalism A: Editing, Gathering, and Reporting the News	ENG2053A	.5			★
This journalism course is recommended for all students interested in working on school publications and is required for those seeking editorial positions. Students develop skills in gathering and reporting news, editing, copyreading, and headlining. Students also consider issues such as the responsibilities of the press, libel and slander laws, problems of censorship, and the role of the news media in shaping public opinion.					
Journalism B: Advanced News Writing and Paper Production	ENG2053B	.5		**Journalism A**	★
This journalism course is recommended for all students interested in working on school publications and is required for those seeking editorial positions. Students develop skills in gathering and reporting news, editing, copyreading, and headlining. Students also consider issues such as the responsibilities of the press, libel and slander laws, problems of censorship, and the role of the news media in shaping public opinion					
CAP Photography	ART2036	.5			↗
This course is only offered at Blair HS as part of their Communication Arts Program (CAP) magnet program. This is an elective course and does do not fulfill the graduation requirement for fine arts. Photography courses provide students with an understanding of photographic media techniques and processes. These courses focus on development of photographic compositions through manipulation of the elements of art and principles of design Photography courses may also include the history of photography historic movements image manipulation critical analysis and some creative special effects.					
CAP Filmmaking	ENG2057	.5			ϟ
Filmmaking encourages students to express themselves and their place in the world, through storytelling using a variety of hands-on, collaborative, multimedia projects. In addition to honing their storytellings skills, students will also watch and analyze films and create their CAP Portfolios. Students will use their CAP Portfolios to post and archive their various projects throughout their CAP experience.					
CAP Drama	ART2102	.5			★
CAP Drama engages students in developing self-confidence, public speaking and performance skills via improvisation, acting, story sharing and scene study. Through play viewing and critiquing you students are invited to discover and articulate their own aesthetic, culminating in a final performance.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
CAP Newswriting	ENG2058	.5			↗
English Composition freshmen and sophomores courses are designed for freshmen and or sophomores and build upon previous writing skills These courses seek to develop the writing processes and practices necessary for producing successful high school compositions Students typically learn to write persuasive critical and creative multiparagraph essays and compositions While emphasizing composition these courses may also incorporate some literature study to expose students to exemplary illustrations of various forms of writing					
CAP TV Production	AMC2011	.5			↗
AudioVisual Production courses provide students with the knowledge and skills necessary for television video film andor radio production Writing scripts camera operation use of graphics and other visuals lighting audio techniques editing production principles and career opportunities are typical topics covered within production courses Students are usually required to produce their own program or segment Additional topics such as broadcast industry regulations radioTV operation power of the medium photography transmission technology and so on may be included.					
CAP Senior Seminar	ENG2064	.5			↯
Other English Language and Literature courses					

DANCE

AVAILABLE AT JAMES HUBERT BLAKE, GAITHERSBURG, RICHARD MONTGOMERY, NORTHWOOD, SENECA VALLEY, AND CHARLES WOODWARD

Transform passion into performance. The MCPS Dance Center grounds students in technique and original choreography while exploring a dynamic range of dance styles. Through hands-on creative projects and real-world industry partnerships, students build the skills, vision, and professional foundation needed to thrive in collegiate arts programs and creative careers.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Dance Center 1, Double Period Art * PE Credit	■ Dance Center 2	■ Dance Center 3, Double Period	■ Dance Center 4, Double Period
	■ Dance Company **OR** ■ Dance Elective	■ Dance Company **OR** ■ Dance Elective **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Dance Company **OR** ■ Dance Elective **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

DANCE ELECTIVE OFFERINGS		
Ballet 1 *Ballet 2* *Choreography 1* *Choreography 2* *Junior Dance Company* *Dance Company*	*Hip Hop Dance* *Jazz Dance 1* *Jazz Dance 2* *Jazz Dance 3*	*Modern Dance* *Tap Dance 1* *Tap Dance 2* *Tap Dance 3*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Dance Center 1 DP	ART2181A/B	1	FA	**A is a prerequisite for B**	★
Students will develop their skills as dancers and creative artists through the study of dance technique and performance, creative process and choreography, dance history and dancer wellness. The course emphasizes technical proficiency, performance quality, proper body alignment, and dancer wellness through the study of dance with an emphasis on anatomy and kinesiology.					
Dance Center 2	ART2182A/B	.5	FA CM	**Dance Center 1**	ϟ
Students will further develop their skills as dancers and creative artists through the study of dance technique and performance, creative process and choreography, dance history and dancer wellness.					
Dance Center 3 DP	ART2183A/B	1	FA CM	**Dance Center 2**	ϟ
Students will further develop their skills as dancers and creative artists through the study of dance technique and performance, creative process and choreography, dance history and dancer wellness.					
Dance Center 4 DP	ART2184A/B	1	FA CM	**Dance Center 3**	ϟ
Students will further develop their skills as dancers and creative artists through the study of dance technique and performance, creative process and choreography, dance history and dancer wellness.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

GRAPHIC DESIGN

AVAILABLE AT ALBERT EINSTEIN AND NORTHWEST

Turn visual ideas into powerful design. The MCPS Graphic Design Center combines observational drawing, industry-standard digital media, and hands-on client projects. Working alongside professional creative partners, students master visual communication and build high-impact portfolios to excel in postsecondary education and thrive in creative industry careers.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Graphic Art & Design 1	■ Graphic Art & Design 2	■ AP Drawing **OR** ■ IB Design 1	■ AP 2D **OR** ■ IB Design 2
■ Studio Art 1	■ Animation 2	■ Graphic Art & Design 3	■ Graphic Art & Design 4
		■ Animation 3 **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Animation 4 **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Graphic Art & Design 1 A/B	ART2050A/B	.5	FA		★
In this course, students will use traditional and contemporary media to explore typography, iconography, illustration as methods of visual communication and creative problem-solving. Students will explore techniques to communicate visual representation, ideas, and narrative by creating and combining symbols, images and text. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of images as text.					
Graphic Art & Design 2 A/B	ART2051A/B	.5	FA CM	**Graphic Art & Design 1 A/B**	ϟ
In this course, students will expand upon traditional and contemporary media to explore methods of visual communication and creative problem-solving. Students will analyze how graphic art influences global responses to visual information while refining their own ability to navigate an increasingly visual contemporary age. To support their professional growth, students strengthen academic language and critical-thinking skills through the creation of artist statements, peer critiques, and the close reading of artworks as text.					
Graphic Art & Design 3	ART2191A/B	.5	FA CM	**Graphic Art & Design 2 A/B**	ϟ
In this course, students will expand upon traditional and contemporary media to explore methods of visual communication and creative problem-solving. Students will analyze how graphic art influences global responses to visual information while refining their own ability to navigate an increasingly visual contemporary age.					
Graphic Art & Design 4	ART2192A/B	.5	FA CM	**Graphic Art & Design 3A/B**	ϟ
This course focuses on portfolio development by mastering modern design tools and experimenting with typography, iconography, and illustration to communicate personal perceptions. Students will analyze how graphic art influences global responses to visual information while refining their own ability to navigate an increasingly visual contemporary age.					
2-D Studio Art 1 A/B	ART2042A/B	.5	FA	**A is a prerequisite for B**	
Students will develop foundational observational drawing and rendering skills while exploring a diverse range of two-dimensional media, including painting, printmaking, and collage. By experimenting with formal qualities and compositional devices, students will engage in creative problem-solving to make aesthetic choices that communicate a compelling narrative. Finally, the course integrates artist statements, peer critiques, and the close reading of artworks as text to strengthen essential writing, academic language, and critical-thinking skills.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Animation 2 A/B	ART2061A/B	.5	FA CM	**1.0 credit in Studio or Digital Art**	ϟ
This advanced course focuses on mastering traditional and contemporary techniques in two- and three-dimensional animation, emphasizing the integrated use of drawing, storyboarding, and design fundamentals. Students are challenged to synthesize complex concepts and skills to create original animations that foster empathetic awareness and a deep respect for diverse societal and cultural histories. The curriculum culminates in the development of academic language and critical-thinking skills through the production of artist statements, peer critiques, and the close reading of animated works as text.					
Animation 3	ART2193A/B	.5	FA CM	**1.0 credit in Studio or Digital Art**	ϟ
This course focuses on continued refinement of traditional and contemporary techniques in two- and three-dimensional animation, emphasizing the integrated use of drawing, storyboarding, and design fundamentals. Students are challenged to synthesize complex concepts and skills to create original animations that foster empathetic awareness and a deep respect for diverse societal and cultural histories.					
Animation 4	ART2194A/B	.5	FA CM	**1.0 credit in Studio or Digital Art**	ϟ
This course focuses on continued refinement of traditional and contemporary techniques in two- and three-dimensional animation, emphasizing the integrated use of drawing, storyboarding, and design fundamentals. Students are challenged to synthesize complex concepts and skills to create original animations that foster empathetic awareness and a deep respect for diverse societal and cultural histories.					
AP Drawing A/B DP	ART2065	.5	FA CM AP	**3.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced drawing techniques and processes to develop a distinct personal style, culminating in a professional exhibition where they must justify curatorial choices that communicate specific meaning. By working in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP 2D Art & Design DP	ART2065	1.0	FA CM AP (DP)	**2.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
IB Art Design 1 A/B	ART2018A/B	1.0	FA CM IB	**1.0 credit in Visual Arts**	ϟ
B Art Design develops students' aesthetic, imaginative, and creative abilities through visual awareness, multicultural expression, and the study of historical and contemporary artistic influences. Students maintain an expressive visual and written journal that documents the connection between their personal research and studio work as part of the IB assessment requirements.					
IB Art Design 2 A/B	ART2021A/B	1.0	FA CM IB	**IB Visual Arts 1 A/B**	ϟ
IB Art Design 2 continues to develop students' aesthetic, imaginative, and creative abilities through visual awareness and multicultural expression in studio work. Students expand and refine the verbal and visual journals begun in IB Art Design 1 while completing a portfolio that fulfills the requirements of the IB Visual Arts assessment.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

MUSIC

AVAILABLE AT ALBERT EINSTEIN, DAMASCUS, RICHARD MONTGOMERY, QUINCE ORCHARD AND CHARLES WOODWARD

Take your talent beyond the practice room and onto the big stage! Whether you dream of performing live, producing tracks, mastering music theory, or launching a career in the arts industry, this immersive pathway gives you the ultimate head start. You'll team up with industry professionals, gain hands-on experience through a real-world capstone project, and even earn business credentials in marketing or entrepreneurship.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Ensemble **OR** General Music Course	■ Ensemble **OR** General Music Course	■ Ensemble **OR** General Music Course	■ Ensemble **OR** General Music Course
■ Musicianship	■ Ensemble or General Music Course **OR** ■ World Language	■ AP Music Theory	■ Ensemble **OR** General Music Course
		■ Ensemble or General Music Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Ensemble or General Music Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

GENERAL MUSIC COURSE OFFERINGS

Music Technology 1 *Music Technology 2* *Recording Studio 1* *Recording Studio 2* *Musicianship 1*	*Piano 1* *Piano 2* *Piano 3* *Piano 4*	*Guitar 1* *Guitar 2* *Guitar 3* *Guitar 4* *Commercial Band*

MUSIC ENSEMBLE OFFERINGS

Chorus 1 *Chorus 2* *Chorus 3* *Chamber Choir* *Show Choir*	*Beginning Band* *Concert Band* *Symphonic Band* *Wind Ensemble* *Beginning Orchestra*	*Symphonic Orchestra* *Philharmonic Orchestra* *Jazz Lab Band* *Jazz Ensemble*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Musicianship	ART2130A/B	.5	FA		★
Musicianship is a foundational course where students in the music center will gain understanding in how music is created, performed, and shared by exploring topics in music history, theory, music industry, and introductory music technology. Students will develop essential skills in music literacy, ear training, composition, and creative expression.					
Music Theory and Composition, AP A/B	ART2076A/B	.5	FA CM (AP)	**Permission of the instructor based on previous musical experience.**	ϟ
Students with a strong interest and preparation in music will engage in intensive sight-singing, dictation, composition, and improvisation to meet the rigorous requirements of the College Board AP Music Theory curriculum. Through active listening and score analysis, they will progress into reading, writing, and analyzing music of increasing structural complexity.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

THEATRE

AVAILABLE AT JAMES HUBERT BLAKE, RICHARD MONTGOMERY, NORTHWOOD, QUINCE ORCHARD, SENECA VALLEY, AND CHARLES WOODWARD

Ready to step into the spotlight and turn your love for performance into a real-world career? Theatre takes you beyond the classroom and into an immersive, hands-on theater experience. Whether you dream of acting, directing plays, designing sets, or managing production tech, this pathway lets you master professional techniques and work with industry-standard tools.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Theatre 1 (Double Period)	■ Theatre 2	■ Theatre Elective **OR** ■ IB Theatre	■ Theatre Elective **OR** ■ IB Theatre
	■ Theatre Elective **OR** ■ World Language	■ Theatre Elective	■ Theatre Elective
		■ Theatre Elective **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Theatre Elective **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

THEATRE ELECTIVES OFFERINGS	
Stage Design 1 *Stage Design 2* *Stage Design 3*	*Stage Management* *Musical Theatre* *Advanced Acting* *Play Directing*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Theatre 1 DP	ART2189A/B	1	FA		★
Students gain an understanding of the entire process through which human behavior is translated into a written drama, produced as a play, and presented to an audience. The study of theatre aesthetics, history, and criticism is balanced with workshop training in acting and basic Theatre production skills, and public performances during and after school may be required to meet course objectives.					
Theatre 2 HS A/B	ART2107A/B	.5	FA CM	**Theatre 1 HS A/B, or permission of the instructor**	ϟ
Students in this course continue to build on the knowledge and skills learned in Theatre 1 through the lenses of creating, performing, and responding. Public performances during and after school may be required to meet course objectives. Prerequisite: Attainment of outcomes for HS Theatre 1 A & B, or permission of the instructor.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

VIDEO & AUDIO PRODUCTION

AVAILABLE AT WINSTON CHURCHILL

Step in front of the camera and behind the soundboard. The Audio & Video Production Program equips students with elite communication, performance, and technical media skills. Through hands-on studio production and real-world media projects, students master public speaking, voice work, scriptwriting, and video editing to bring compelling stories to life across modern platforms.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ TV Production 1/2	■ Video and Audio Production I A/B	■ Video and Audio Production II A/B	■ Video and Audio Production III A/B
■ Creative Writing for Video & Audio Production - Center Program	■ Digital Art 1	■ Arts Entrepreneurship and Management	■ Video and Audio Production CCL Internship 1

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
TV Production 1	ENG2095	.5			★
This course builds on foundational television concepts through a combination of classroom study and practical production experiences. Students examine issues in broadcasting, programming, and scheduling while applying advanced writing and production techniques across a range of television formats.					
TV Production 2	ENG2096	.5			★
Television 2 builds on foundational television concepts through a combination of classroom study and practical production experiences. Students examine issues in broadcasting, programming, and scheduling while applying advanced writing and production techniques across a range of television formats.					
Video and Audio Production I A/B	AMC2040A/B	.5			★
Introduces media production and broadcasting through visual composition, audio recording, and storytelling. Students develop video and audio skills in studio, field, and live-event settings while exploring careers in film, television, radio, and online media and the ethical use of emerging technologies.					
Video and Audio Production II A/B	AMC2041A/B	.5		**Video and Audio Production I A/B**	ϟ
Expands students' media production skills through intermediate video editing, audio post-production, and collaborative workflow management. Students use Adobe Premiere Pro to edit, color grade, and master audiovisual projects.					
Video and Audio Production III A/B	AMC2042A/B	.5		**Video and Audio Production II A/B**	ϟ
Advances students' technical and creative skills in audio engineering and motion graphics. Students use editing tools for professional multitrack recording, editing, and mixing, specialize in broadcast audio, live-event sound, studio recording, or post-production sound, and complete a capstone project involving collaboration across disciplines.					
Video and Audio Production CCL Internship 1	AMC2043	1.0		**Video and Audio Production III A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Digital Art 1 A/B	ART2069A/B	.5	FA		★
This course explores digital hardware and software platforms that reflect contemporary practices and industry standards to prepare for college and career. Students use the computer as a tool to create rastor- and vector-based artworks. Students discuss ethical and safety issues in the use of digital media as a tool for visual communication. Creative problem-solving skills are developed as students discover how formal qualities and compositional devices are used to make aesthetic choices in digital artwork that communicates narrative. Writing, academic language, and critical thinking skills are developed through artist statements, critiques, and the close reading of digital artworks as text.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

VISUAL ART

AVAILABLE AT JAMES HUBERT BLAKE, ALBERT EINSTEIN, NORTHWEST, QUINCE ORCHARD, CHARLES WOODWARD, AND THOMAS S. WOOTTON

Step out of standard art class and into a professional studio environment! Whether you love drawing and design, ceramics, or digital art, this program helps you level up your skills, master professional tools like Adobe, and build an impressive portfolio that gets noticed. You'll complete real-world capstone projects, gain hands-on career experience, and earn industry certifications to jumpstart your path to art school, college, or career in design and the creative arts.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Visual Art Center 1 (double period)	■ Visual Art Center 2	■ AP Drawing, Double Period **OR** ■ IB Art, Double Period	■ AP 2D or 3D Visual Art, AP Photography or IB Art
	■ Elective Art Course **OR** ■ World Language	■ Elective Art Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language	■ Elective Art Course **OR** ■ Arts Entrepreneurship and Management **OR** ■ World Language

VISUAL ART ELECTIVE OFFERINGS			
2D Studio Art 1 *2D Studio Art 2* *2D Studio Art 3* *2D Studio Art 4* *Drawing 2* *Painting 2* *Printmaking 2* *Contemporary & Mixed Media 2* *Fashion Illustration 1* *Fashion Illustration 2*	*Ceramics & Sculpture 1* *Ceramics & Sculpture 2* *Ceramics & Sculpture 3* *Ceramics & Sculpture 4* *Functional Fine Art & Craft 1* *Functional Fine Art & Craft 2*	*Fashion Production1* *Fashion Production 2* *Fashion Production 3* *Fashion Production 4* *Digital Art 1* *Digital Art 2* *Digital Art 3* *Digital Art 4*	*Darkroom Photography* *Photography 1* *Photography 2* *Photography 3* *Photography 4* *Art History*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Visual Art Center 1 DP	ART2068A/B	1.0	FA CM		ϟ
Students will develop their skills as artists through creative problem solving while developing and refining their observational drawing and rendering skills with a focus on portfolio quality. Students will also study and practice a variety of other art making methods such as painting, collage, and printmaking while exploring a variety of media, tools and techniques.					
Visual Arts Center 2 A/B	ART2055A / ART2055B	.5	FA CM		ϟ
The Visual Art Center (VAC) is a rigorous portfolio preparation program where students develop a distinct personal voice by working in a collective studio environment rooted in collegiality and constructive criticism. Through exposure to art history and contemporary practices, students synthesize diverse artmaking approaches to curate a personal exhibition that justifies their specific aesthetic and meaningful choices. The program culminates in the submission of an original portfolio designed to meet College Board standards and demonstrate mastery of the competencies required for the AP Exam.					
AP Drawing DP	ART2065	.5	FA CM AP	**3.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced drawing techniques and processes to develop a distinct personal style, culminating in a professional exhibition where they must justify curatorial choices that communicate specific meaning. By working in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
AP 2D Art & Design DP	ART2065	1.0	FA CM AP (DP)	**2.0 credits in Studio Art or Digital Art**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP 3D Art & Design DP	ART2067	1.0	FA CM AP	**2.0 credits in Ceramics/ Sculpture or Functional Fine Art & Craft**	ϟ
Students will synthesize advanced two-dimensional media and techniques to develop a distinct personal voice, culminating in a professional exhibition where they justify curatorial choices that communicate specific meaning. By participating in a collective studio environment, students foster professional growth through a collegial atmosphere centered on giving and receiving constructive criticism. The course concludes with the submission of an original portfolio meeting College Board requirements for the AP Exam, and it may be repeated once for credit.					
AP Photography A/B DP	ART2041A/B	1.0	FA CM AP (DP)	**Photography 2 A/B**	ϟ
This individualized program focuses on art projects that demonstrate the competencies expected of AP art applicants, as identified by the College Board. Students assemble portfolios to meet the submission requirements for the AP Exam. This course may be repeated once for credit.					
IB Art Design 1	ART2018A/B	1.0	FA CM IB	**1.0 credit in Visual Arts**	ϟ
IB Art Design develops students' aesthetic, imaginative, and creative abilities through visual awareness, multicultural expression, and the study of historical and contemporary artistic influences. Students maintain an expressive visual and written journal that documents the connection between their personal research and studio work as part of the IB assessment requirements.					
IB Art Design 2	ART2021A/B	1.0	FA CM IB	**IB Visual Arts 1 A/B**	ϟ
IB Art Design 2 continues to develop students' aesthetic, imaginative, and creative abilities through visual awareness and multicultural expression in studio work. Students expand and refine the verbal and visual journals begun in IB Art Design 1 while completing a portfolio that fulfills the requirements of the IB Visual Arts assessment.					
Arts Entrepreneurship and Management	ART2190A/B	.5			ϟ
Provides students with an overview of how artists function as small businesses and develops key skills like grant writing and budget management to support students as professional artists.					

CRITICAL LANGUAGES, CULTURES, AND GLOBAL CONNECTIONS (CHINESE)

AVAILABLE AT CLARKSBURG, WINSTON CHURCHILL, WALTER JOHNSON, SHERWOOD, WATKINS MILL, AND WALT WHITMAN

Level Up Your Future with Mandarin! Dive into the Mandarin Chinese language and vibrant cultural studies blended with the humanities! Develop strong communication skills, global awareness, and the cross-cultural confidence needed to stand out on college applications and launch high-impact global careers. Through authentic cultural experiences and interdisciplinary learning, students are prepared to connect across cultures and apply their skills in postsecondary study, careers, and their communities.

AUDIENCE	GRADE 9	GRADE 10	GRADE 11	GRADE 12
Students with no prior Chinese study	▪ Chinese 1 & 2, Double Period	▪ Chinese 3 & 4, Double Period	▪ Chinese 5	▪ AP Chinese Language & Culture
Students with prior coursework, native, or heritage speakers	▪ Chinese 4	▪ Chinese 5 & 6, Double Period	▪ AP Chinese Language & Culture	▪ Chinese 7
Both groups above	▪ Functional Fine Arts & Craft - Center Program	▪ East Asian History - Center Program	▪ Global Issues - Center Program (includes year-long, local cross-cultural experience Project-based service learning)	▪ Global Connections (includes year-long, local cross-cultural experience Project-based service learning)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Chinese 1 DP	WLG2282	1	NCAA		
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections, Chinese program will engage in an accelerated, rigorous study of Chinese language and cultures in an interdisciplinary manner with other GLOBE Center program classes. Chinese 1 introduces students to the Chinese language and culture. Students develop novice-level skills in reading, writing, speaking, and understanding the language. The course also explores the products, practices, and perspectives of Chinese-speaking communities around the world.					
Chinese 2 DP	WLG2283	1	NCAA	**Chinese 1**	
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections, Chinese program will engage in an accelerated, rigorous study of Chinese language and cultures in an interdisciplinary manner with other GLOBE Center program classes. Chinese 2 expands students' proficiency in the Chinese language and culture. Students strengthen their novice-level skills in reading, writing, speaking, and listening. The course continues to explore the products, practices, and perspectives of Chinese-speaking communities around the world.					
Honors Chinese 3 DP	WLG2284	1	CM, NCAA	**Chinese 2**	↗
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections, Chinese program will engage in an accelerated, rigorous study of Chinese language and cultures in an interdisciplinary manner with other GLOBE Center program classes. Honors Chinese builds students' proficiency in Chinese through more complex communication tasks. Students build their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors Chinese 4 DP	WLG2285	1 as semester is a double period	CM, NCAA	**Level 3 of the language**	↗
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections, Chinese program will engage in an accelerated, rigorous study of Chinese language and cultures in an interdisciplinary manner with other GLOBE Center program classes. Honors Chinese 4AB advances students' proficiency in Chinese across a variety of contexts. Students refine their intermediate-level skills in reading, writing, speaking, and listening while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					

Chinese 5 DP	WLG2286	1		**Level 4 of the language**	ϟ
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections, Chinese program will engage in an accelerated, rigorous study of Chinese language and cultures in an interdisciplinary manner with other GLOBE Center program classes. Chinese 5AB strengthens students' intermediate-level language skills in reading, writing, speaking, and listening. Students communicate with increasing proficiency while examining the diverse products, practices, and perspectives of Chinese-speaking communities around the world.					

Chinese 6 DP	WLG2287	1	CM NCAA (AL)	**Level 5 of the language**	ϟ
Chinese 6A develops students' advanced-level proficiency in reading, writing, speaking, and listening. Students engage with a variety of authentic materials while deepening their understanding of the products, practices, and perspectives of Chinese-speaking communities around the world.					

Functional Fine Art & Craft 1 A/B	ART2053A/B	.5	FA		
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections program will engage in an in-depth study of the art of the region studied and decode the narrative and social history embedded in the cultural craft. Students will explore a variety of traditional and contemporary materials to create functional fine art, examining how design and decoration communicate narrative and social significance. Through continuous practice and reflection, students develop superior craftsmanship while building essential personal traits like resilience, perseverance, and a growth mindset.					

Global Connections	WLG2290A/B	.5	CM NCAA		ϟ
Students in the GLOBE Center Critical Languages, Cultures, and Global Connections program will engage in an in-depth study of . Students will synthesize the language proficiency, cultural knowledge, and global competencies developed throughout their intensive program through a culminating capstone experience. Students will engage with local and international communities to apply their learning in authentic contexts, fostering meaningful connections and preparing them for success as globally minded citizens.					

HUMANITIES

AVAILABLE AT WINSTON CHURCHILL, WALTER JOHNSON, COL. ZADOK MAGRUDER, POOLESVILLE, SHERWOOD, AND WALT WHITMAN

Ever wondered why people do what they do, how history shapes our world today, or how to use your voice to make a real impact? Welcome to the Humanities Center Program—an epic high school journey where you learn to think critically, solve real-world problems, and lead with purpose! Humanities Program equips students with the knowledge and skills to think critically, communicate with purpose, and create meaningful solutions to complex, real-world problems that reflect the human experience.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Honors English 9 - Center Program	■ English 10 AP Seminar - Center Program	■ AP English Language and Composition - Center Program	■ AP English Literature and Composition - Center Program
■ AP US Government - Center Program	■ AP US History - Center Program	■ AP World History - Center Program	■ Humanities Elective
■ Criticism in the Humanities	■ Culture in Lit/ Media in Society	■ AP Art History - Center Program	■ AP Research - Center Program
		■ Humanities Elective	

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Criticism in Humanities	ENG2059A	.5	CM NCAA		ϟ
GLOBE Center Humanities courses examine and evoke student responses to human creative efforts and the world in particular historical periods and in particular cultures. Course content includes exploration, analysis, synthesis and various responses to cultural traditions including viewing, listening, speaking, reading, writing, performing, and creating The course may also examine relationships among painting sculpture architecture and music.					
Culture in Literature	ENG2033	.5	CM NCAA		ϟ
GLOBE Center Humanities courses examine texts whose authors represent cultural and ethnic groups from around the world. Through their reading of essays, poems, short stories, novels, and films, students develop a greater awareness of cultural dynamics and a deeper understanding of how cultural perspectives are reflected in literature.					
Media in Society	2344	.5	CM NCAA		ϟ
GLOBE Center Humanities courses enable students to understand and critically evaluate the role of media in society. Course content typically includes investigation of visual images printed material and audio segments as tools of information entertainment and communication to influence opinion improvement of presentation and evaluative skills in relation to mass media recognition of various techniques for delivery of a particular message and in some cases creation of a media product. The course may concentrate on a particular medium.					

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

AVAILABLE AT BETHESDA-CHEVY CHASE, JOHN F. KENNEDY, RICHARD MONTGOMERY, SENECA VALLEY, SPRINGBROOK, AND WATKINS MILL

Ever wondered what it takes to become a true global thinker, problem-solver, and total game-changer? Welcome to the International Baccalaureate (IB) Diploma Programme—a high school experience designed to build big skills, explore global ideas, and prepare you for college and your dream career! The International Baccalaureate Diploma Programme (IB DP) fosters a challenging, internationally minded education that develops thoughtful, knowledgeable, compassionate, global citizens. Through inquiry-based, interdisciplinary learning, students build strong skills and conceptual foundations, preparing them for success in higher education and beyond.

GRADE 9	GRADE 10	DP SUBJECT GROUPS	GRADE 11	GRADE 12
▪ Honors English 9 A/B - Center Program	▪ Honors English 10 A/B - Center Program	▪ Group 1: Language A	▪ IB English	
▪ World Language	▪ World Language	▪ Group 2: Language B	▪ IB Language Acquisition: World Language *1- or 2-year course*	
▪ AP U.S. Government and Politics	▪ AP U.S. History	▪ Group 3: Individuals and Societies	▪ IB History *1- or 2-year course*	
▪ Honors Biology A/B - Center Program	▪ Honors Chemistry or Honors Physics - Center Program	▪ Group 4: Sciences	▪ IB Science *1 or 2 years*	
▪ Integrated Algebra 1 or higher	▪ Integrated Algebra 2 or higher	▪ Group 5: Mathematics	▪ IB Math SL or HL	
▪ Visual and Performing Arts, Technology, and Physical and Health Education (to fulfill Maryland graduation requirements)		▪ Group 6: The Arts or IB Elective	▪ IB Arts or IB Elective *1- or 2-year course*, **OR** another IB course from Groups 2, 3, or 4	
▪ MYP Personal Project, Community Engagement, Interdisciplinary Learning		▪ The IB Core	▪ Theory of Knowledge Extended Essay, and Creativity, Action, Service	

****Course progressions are subject to change. Note: Courses are chosen from each of the 6 subject areas: 3 Higher Level courses (HL; 2-year courses) and 3 Standard Level courses (SL; 1-2 year courses) or 4 Higher Level courses (HL; 2-year courses) and 2 Standard Level courses (SL; 1- 2 year courses). Individual IB DP schedules are highly personalized based on student interests and goals; no two schedules look exactly alike.**

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors English 9A/B - Center Program	ENG2001A/B	.5	CM, NCAA		↗
GLOBE Center International Baccalaureate pathway courses for ninth graders is a foundational program designed to prepare ninth-grade students for the advanced analytical, reading, and writing demands of the International Baccalaureate (IB) Diploma Programme. Students in the GLOBE Center International Baccalaureate pathway begin the four-year sequence of IB English courses. An emphasis on the writing process complements the study of literature. The first semester introduces literary analysis, with a focus on mythology and Greek, Shakespearean, and modern drama. In the second semester, the focus shifts to the study of poetry and fiction as students examine the connection between the classical tradition and modern thought. Honors English 9 establishes a strong foundation for high school-level literary analysis, argumentation, and purposeful writing through increasingly complex texts and ideas.					
Honors English 10A/B - Center Program	ENG2001A/B	.5	CM, NCAA	**English 9**	↗
GLOBE Center International Baccalaureate pathway courses for tenth graders is a foundational program designed to prepare tenth-grade students for the advanced analytical, reading, and writing demands of the International Baccalaureate (IB) Diploma Programme. Students in the GLOBE Center International Baccalaureate pathway begin the four-year sequence of IB English courses. Honors English 10 builds on students' ninth-grade learning through increasingly complex literary, informational, and media texts that strengthen critical thinking, communication, and analysis. An enrichment component provides accelerated opportunities for nuanced interpretation, independent inquiry, sustained discussion, and sophisticated evidence-based writing as students evaluate arguments and perspectives and prepare for college, careers, and civic life.					
Honors Biology A/B - Center Program	SCI2001A/B	.5	CM, NCAA		↗
Students in the GLOBE Center Program-IB Honors Biology will focus on inquiry-based learning to prepare for IB level Biology. This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas using observations, experiments, models and technology in developing solutions to authentic problem-based scenarios while also exploring career opportunities. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Honors Chemistry A/B - Center Program	SCI2004A/B	.5	CM, NCAA	**Algebra 1 or Geometry A/B or Honors Corequisite: Algebra 1 or Geometry A/B or Honors**	↗
Students in the GLOBE Center Program-IB Honors Chemistry will focus on inquiry-based learning to prepare for IB level Chemistry. This NGSS-aligned course emphasizes the study of matter through inquiry. Using data, evidence, and scientific modelling, students achieve a deeper understanding of changes in matter. Topics of study will include structures and properties of matter, atmospheric chemistry, chemical reactions, conservation of mass/energy, and relationships between Earth and human activity. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					

Honors Physics A/B - Center Program	SCI2006A/B	.5	CM, NCAA	**Corequisite: Geometry A/B**	↗
Students in the GLOBE Center Program-IB Honors Physics will focus on inquiry-based learning to prepare for IB level Physics. This NGSS-aligned course investigates physical laws and theories, relationships of physical phenomena, and the interrelationships of physics to other fields of human endeavor. Topics include traditional physics subjects (Newtonian mechanics: dynamics, momentum, energy; electricity and magnetism; waves) along with related subjects in earth science (plate tectonics; earthquake activity) and astronomy (solar evolution). Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					

LEAD CENTER

LEADERSHIP, EMPOWERMENT, ACTION AND DEVELOPMENT

GLOBAL ECOLOGY AND LEADERSHIP

AVAILABLE AT POOLESVILLE HS

Ever wonder how technology, culture, and nature all fit together? In this program, you won't just learn about the environment from a textbook—you'll experience it firsthand! Through hands-on experiments and field experiences, you'll tackle real environmental challenges facing our world today. We combine science and social studies to help you understand how our local actions impact the whole planet. Get ready to explore natural resources, invent creative solutions, and step up as a thoughtful leader for a greener future!

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Environmental Science Biology-Center Programs	■ Honors Chemistry-Center Programs	■ Environmental Science Physics-Center Programs **OR** ■ AP Physics 1 & 2	■ AP Environmental Science
■ Honors US History-Center Programs	■ AP US Government-Center Programs	■ AP World History-Center Programs	■ Global Ecology Elective
■ AP Seminar-Center Programs	■ Global Ecology Elective (Capstone focus)	■ Global Ecology Elective (Capstone focus)	■ AP Research (Capstone focus)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Environ Sci Biology A/B	SCI2049A				↗
Environ Sci Biology builds on the MCPS Honors Biology A curriculum with an added focus on global ecological systems and interdisciplinary connections. Students study biological phenomena and engage in research to understand interactions within ecosystems. The course emphasizes scientific inquiry and the application of biology to global environmental issues.					
Environ Sci3 Physics A/B	SCI2050A/B				↗
Students study the same topics and instructional objectives as in the MCPS Honors Physics A curriculum. Additional emphasis is placed on interdisciplinary topics, the production and conservation of energy, and student research."					
Wildlife Biology	SCI2043	.5	NCAA	**Biology A/B**	★
Wildlife Biology introduces students to the study of wildlife management and zoology through field investigations and data analysis. Students examine topics such as habitat use, animal behavior, morphology, and environmental factors like soil and water quality to understand ecosystem viability. The course emphasizes scientific field techniques and exploration of careers in animal science.					

JUNIOR RESERVE OFFICERS' TRAINING CORPS (JROTC)

AVAILABLE AT GAITHERSBURG, JOHN F. KENNEDY, COL. ZADOK MAGRUDER, PAINT BRANCH, AND SENECA VALLEY

Looking for a high energy high school experience that gets you up on your feet. JROTC is all about hands-on action, building real-world confidence, and making lifelong friends who have your back. Whether you're curious about public service, high-tech challenges, or just want to become the most confident version of yourself, JROTC gives you the ultimate head start for college, careers, and beyond. There is no commitment to join the military after participation.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Naval Science or Military Science 1	■ Naval Science or Military Science 2	■ Naval Science or Military Science 3	■ Naval Science or Military Science 4
■ Physical Education-Center Programs	■ AP Government-Centers Programs	■ JROTC Concentration-2 credits in a focus area developed in conjunction with the JROTC program lead teacher and counselor	

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL↯
Military Leadership 1 A/B	PGS2043A/B	.5	5 SSL		★
Military Leadership 1 introduces cadets to the core mission, heritage, and values of the JROTC program. Emphasis is placed on developing individual responsibility, personal wellness, and fundamental military customs and courtesies.					
Military Leadership 2 A/B	PGS2044A/B	.5	5 SSL	**Military Leadership 1 A/B**	↯
Building on foundational knowledge, Military Leadership 2 shifts to small-unit dynamics and effective teamwork. Cadets explore communication models, both verbal and written, alongside followership roles that support mission success.					
Military Leadership 3 A/B	PGS2045A/B	.5	5 SSL	**Military Leadership 2 A/B**	↯
Military Leadership 3 challenges cadets to apply leadership concepts in complex scenarios. Through comparative study of leadership styles and situational leadership exercises, students learn to adapt their approach to team needs.					
Military Leadership 4 A/B	PGS2046A/B	.5	5 SSL	**Military Leadership 3 A/B**	↯
Military Leadership 1V tasks cadets with strategic leadership, project management, and peer mentoring. Students develop comprehensive plans for a capstone initiative, such as a drill competition or community outreach event, addressing objectives, resources, and risk management.					

LEADERSHIP, LAW, AND CRIMINAL JUSTICE

AVAILABLE AT NORTHWOOD AND WALTER JOHNSON

Ever caught yourself enjoying and debating a point or wondering how real crime investigations, laws, and courtrooms actually work? In Leadership, Law, and Criminal Justice, you don't just learn about the system—you step inside it. Get ready to test your critical thinking, argue your case, and discover what it takes to protect rights and lead in public service!Students engage with real-world issues through coursework, career-connected, and applied learning experiences that connect legal studies, criminal justice, ethics, history, and public policy.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Introduction to Social Justice-Center Programs **AND** Leadership and Social Justice-Center Programs	■ Criminal Justice and Law Enforcement 1-Center Programs	■ Criminal Justice and Law Enforcement 2-Center Programs	■ Criminal Justice and Law Enforcement 3-Center Programs
■ English 9-Center Programs	■ AP US Government-Center Programs	■ Sociology 1 & 2 OR Law 1 & 2 **OR** AP Psychology A/B	■ Sociology 1 & 2 OR Law 1 & 2 **OR** AP Psychology A/B

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Introduction to Social Justice	SOC2091	.5			★
Intro to Social Justice introduces students to key concepts of equity, diversity, identity, and social change. Students will explore diverse perspectives, examine social issues, and develop skills in critical thinking, communication, and civic engagement.					
Leadership and Social Justice	SOC2113	.5			★
Students explore the principles of leadership, equity, and civic engagement while developing the skills to analyze community challenges through a social justice lens. Students collaborate on projects, discussions, and service-learning experiences that empower them to advocate for positive change in their school, local community, and beyond.					
Criminal Justice and Law Enforcement 1 A/B	SOC2029A/B	.5			★
This foundational course introduces students to the criminal justice system, emphasizing the roles of police, courts, and corrections. Topics include ethical responsibilities, community policing, and public safety.					
Criminal Justice and Law Enforcement 2 A/B	SOC2030A/B	.5		**Criminal Justice and Law Enforcement 1**	ϟ
Builds on foundational knowledge, focusing on law enforcement techniques such as traffic stops, patrol procedures, and report writing. Includes legal concepts like constitutional law and search and seizure protocols					
Criminal Justice and Law Enforcement 3A/B	SOC2031A/B	.5		**Criminal Justice and Law Enforcement 2**	ϟ
Focuses on "Community Policing and Legal Processes" with principles of community, emphasizing trust-building, diversity, and problemsolving. Students will explore crisis intervention techniques, mental health awareness, and conflict resolution, and Community and Crisis Response.					

LEADERSHIP FOR SOCIAL JUSTICE

AVAILABLE AT DAMASCUS, COL. ZADOK MAGRUDER, PAINT BRANCH, WALT WHITMAN, AND THOMAS S. WOOTTON

The Leadership for Social Justice (LSJ) program is designed for students who want to stand up for what's right, build essential leadership skills, and make a real impact in their schools and local communities. Through hands-on field trips, teamwork, and real-world projects, you'll learn how to express your ideas, collaborate with others, and partner with local community leaders to solve meaningful challenges. Join LSJ to grow your public speaking, critical thinking, and problem-solving abilities while preparing to become the change-maker your community needs!

GRADE 9	GRADE 10	GRADE 11	GRADE 12
▪ Introduction to Social Justice-Center Programs **AND** Leadership and Social Justice-Center Programs	▪ Community Organizing and Social Justice-Center Programs (S1) & LSJ Elective(S2)	▪ AP Seminar-Center Programs	▪ Career-Connected Learning (internship) with a Social Justice Advocacy Organization (S1) & LSJ Elective(S2)
▪ Honors English 9-Center Programs	▪ Honors English 10-Center Programs		▪ LSJ Electives
	▪ AP US Government-Center Programs		

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Introduction to Social Justice	SOC2091	.5			
Intro to Social Justice introduces students to key concepts of equity, diversity, identity, and social change. Students will explore diverse perspectives, examine social issues, and develop skills in critical thinking, communication, and civic engagement.					
Leadership and Social Justice	SOC2113	.5			
Students explore the principles of leadership, equity, and civic engagement while developing the skills to analyze community challenges through a social justice lens. Students collaborate on projects, discussions, and service-learning experiences that empower them to advocate for positive change in their school, local community, and beyond.					
Community Organizing and Social Justice	SOC2121	.5			★
Community Organizing and Social Justice develops students' understanding of how individuals and communities can work together to address inequity and create meaningful social change. Through the study of community issues, organizing strategies, civic engagement, and social justice movements, students will examine diverse perspectives, analyze systems of power and privilege, and explore the role of advocacy in creating more equitable communities. Students will develop skills in collaboration, communication, research, and action as they investigate real-world issues and design solutions that amplify community voices and promote positive social change.					
Social Justice through Public Policy	SOC2103	.5			
Students will learn how to advocate for social policies that promote social justice. The course examines the public policy process and provides students with opportunities to analyze policy issues, develop potential solutions, and design strategic policy advocacy campaigns.					
Environmental Justice	SOC2093				★
This course introduces students to environmental inequalities stemming from class, gender, race, and other social disparities. Participants will investigate the global distribution of environmental benefits and hazards while tracing the emergence of various environmental justice movements. The curriculum covers diverse topics ranging from climate change and food scarcity to energy transitions and conservation.					
Arts and Social Justice	ART2176	.5	FA		★
In this course, students will learn how art has been used in conjunction with social justice throughout history. Students will learn more about artistic activism, while also exploring various artmaking methods, in order to create artwork as a response to different social issues. Students will explore historical and contemporary artists and artistic movements, and understand how to analyze, interpret, and critique works of art. By the end of this course, students will be able to engage with art to foster critical thinking while tackling real-world issues.					
Culture in Literature	ENG2033	.5			★
Culture in Literature students examine texts whose authors represent cultural and ethnic groups from around the world. Through their reading of essays, poems, short stories, novels, and films, students develop a greater awareness of cultural dynamics and a deeper understanding of how cultural perspectives are reflected in literature.					

BIOTECHNOLOGY STUDIES

AVAILABLE AT ALBERT EINSTEIN, JOHN F. KENNEDY, NORTHWEST, AND QUINCE ORCHARD

Step into the future of science with MED Center Biotechnology Studies. Our students develop as ethical innovators and collaborative leaders prepared to transform human health and global sustainability. Unlock your potential, ignite your passion, and jumpstart your path to higher education and breakthrough careers in biotechnology.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Honors Biology-Center Programs	■ Honors Chemistry-Center Programs	■ Biotechnology I DP (S1) ■ Biotechnology II DP (S2)	■ Biotechnology III
■ Technology Credit - CS ■ AP CS Principles if no technology education credit ■ AP CS Principles, Programming 1 or AP CS Java if student has technology education credit	■ Honors Physics **OR** AP Physics 1		■ AP or Advanced Level Biology/ Chemistry Elective*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Biotechnology I DP A/B	BHP2092A/B	1	CM		ϟ
Biotechnology I provides an introductory overview of bioprocessing and biomanufacturing by covering workplace safety, solution preparation, basic organic chemistry, bacterial culturing, and the regulatory frameworks governing biological product development. **This is a double period course.**					
Biotechnology II DP A/B	BHP2093A/B	1	CM	**Biotechnology I A/B**	ϟ
Biotechnology II expands on upstream and downstream bioprocessing techniques for bringing a biologic product to market—including the production, purification, and assay validation of nucleic acids, proteins, and cell lines—to prepare students for the industry-recognized certification exam (Biotechnician Assistant Credential Exam (BACE). **This is a double period course.**					
Biotechnology III DP A/B	BHP2094A/B	.5	CM	**Biotechnology II A/B**	ϟ
Biotechnology III serves as the capstone course, leveraging foundational concepts from previous courses through literature reviews, bioethics exploration, advanced experimental assays, and direct work with industry professionals to prepare students for the workforce.					
Biotechnology Career Connected Learning Internship 1	BHP2095	1	CM, NCAA	**Biotechnology I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Biotechnology Career Connected Learning Internship 2	BHP2096	1	CM, NCAA	**Biotechnology Career Connected Learning Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Biotechnology Dual Enrollment	BHP5070	1	CM, NCAA	**Biotechnology I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

CLINICAL HEALTHCARE: MEDICAL ASSISTANT

AVAILABLE AT ALBERT EINSTEIN, JOHN F. KENNEDY, PAINT BRANCH, QUINCE ORCHARD, AND ROCKVILLE

The Clinical Healthcare programs empower students to explore, innovate, and lead in the field of healthcare. Grounded in equity, rigor, and real-world relevance, the program cultivates curiosity, critical thinking, and compassion by integrating advanced coursework with experiential learning. Designed for students interested in working directly with patients, this pathway provides hands-on preparation for careers in direct patient care. Students progress through integrated science coursework and clinical training, leading to industry-recognized credentials as a Certified Clinical Medical Assistant (CCMA). This program also builds skills and knowledge for college and postsecondary study in clinical medical fields. Career-connected learning experiences and partnerships with local hospitals and nursing facilities ensure authentic exposure to healthcare settings.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Technology Credit (if needed)	■ Certified Clinical Medical Assistant I	■ Certified Clinical Medical Assistant II	■ Certified Clinical Medical Assistant III
■ Honors Biology-Center Programs	■ Honors Chemistry-Center Prgorams	■ AP Biology Double Period **OR** ■ Honors Physics **AND** ■ An Elective	■ Anatomy & Physiology
			■ Medical Career Connected Learning **OR** ■ Dual Enrollment in Related Course

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Certified Clinical Medical Assistant I (CCMA) A/B	BHP2034A/B	.5	CM, NCAA		★
CCMA I focuses on foundational healthcare concepts, human anatomy, medical terminology, safety standards, and fundamental clinical skills, including measuring and recording vital signs.					
Certified Clinical Medical Assistant II A/B	BHP2036A/B	.5	CM, NCAA	**Certified Clinical Medical Assistant I A/B**	ϟ
CCMA II shifts focus toward hands-on clinical and laboratory procedures—including patient intakes, phlebotomy, diagnostic testing, minor exam assistance, and infection control—while launching targeted preparation for the NHA CCMA certification exam.					
Certified Clinical Medical Assistant III A/B	BHP2038A/B	.5	CM, NCAA	**Certified Clinical Medical Assistant II A/B**	ϟ
CCMA III is a capstone course that deepens understanding of advanced system-based anatomy and physiology while preparing students for clinical internships or externships and transitioning them into professional healthcare practice.					
CCMA Career Connected Learning Internship 1	BHP2039	1	CM, NCAA	**Certified Clinical Medical Assistant I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCMA Career Connected Learning Internship 2	BHP2040	1	CM, NCAA	**CCMA Career Connected Learning Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
CCMA Dual Enrollment	BHP5020	1	CM, NCAA	**Certified Clinical Medical Assistant I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

CLINICAL HEALTHCARE: PHARMACY TECHNICIAN

AVAILABLE AT CLARKSBURG HS

Turn your passion for helping others into a high-powered healthcare career! Learn how medicines work, train in real-world clinical settings like local hospitals, and earn your Certified Pharmacy Technician credential before you even finish school. Jumpstart your path to becoming a Pharmacist or a medical professional today! Students progress through integrated science coursework and clinical training, leading to industry-recognized credentials as a Certified Pharmacy Technician and providing valuable skills and knowledge for future study in any medical field.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Introduction to Healthcare	■ Pharmacy Technician I	■ Pharmacy Technician II	■ Pharmacy Technician III
■ Honors Biology-Center Programs	■ Honors Chemistry-Center Programs	■ Biology Double Period **OR** ■ Honors Physics **AND** ■ An Elective	■ Anatomy & Physiology
			■ Medical Career Connected Learning **OR** ■ Dual Enrollment in Related Course

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Introduction to Healthcare	BHP2106A/B				★
Introduction to Healthcare Careers provides students with a foundational overview of the healthcare industry, including its history, organization, facilities, career pathways, and professional expectations. Students explore healthcare occupations, education and credentialing pathways, and the ways healthcare professionals contribute to patient care.					
Pharmacy Technician I A/B	BHP2059A/B	.5	CM, NCAA	**None**	★
Pharmacy Technician I covers the foundational concepts of pharmacy practice, highlighting medical and pharmaceutical terminology, introductory pharmacology, legal and ethical standards, drug calculations, and essential operations.					
Pharmacy Technician II A/B	BHP2060A/B	.5	CM, NCAA	**Pharmacy Technician I A/B**	ϟ
Pharmacy Technician II expands on foundational skills with advanced calculations, compounding techniques, inventory management, and prescription processing, while preparing students for the national Certified Pharmacy Technician certification exam through the NHA.					
Pharmacy Technician III A/B	BHP2061A/B	.5	CM, NCAA	**Pharmacy Technician II A/B**	ϟ
Pharmacy Technician III serves as the capstone experience, emphasizing hands-on clinical rotations through externships, advanced pharmacy operations, workplace ethics, and seamless transition into the professional pharmacy workforce.					
Pharmacy Technician Career Connected Learning Internship 1	BHP2062	1	CM, NCAA	**Pharmacy Technician I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Pharmacy Technician Career Connected Learning Internship 2	BHP2063	1	CM, NCAA	**Pharmacy Technician Career Connected Learning Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Pharmacy Technician Dual Enrollment	BHP5040	1	CM, NCAA	**Pharmacy Technician I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

MEDICAL SCIENCE

AVAILABLE AT CLARKSBURG, PAINT BRANCH, ROCKVILLE, AND WHEATON

Step into the lab and tackle tomorrow's biggest medical challenges. Designed for curious, driven students, this multi-year pathway brings healthcare to life through authentic biomedical practices. You'll dive deep into medical case studies, experimental design, public health, and ethics to jump-start your journey toward a career in medicine. The Medical Science pathway serves students who are intellectually curious, motivated by scientific inquiry, and eager to understand the human body and real-world health challenges. Through a multi-year sequence of rigorous coursework, students engage in hands-on laboratory investigations, medical case studies, and project-based learning that reflect authentic biomedical practices.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Biomedical Science I	■ Biomedical Science II	■ Biomedical Science II	■ Biomedical Innovations
■ Honors Physics-Center Programs or AP Physics 1	■ Honors Chemistry	■ AP Biology Double Period	■ AP Chemistry **OR** ■ AP Physics C

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Biomedical Science I A/B	BHP2081A/B	.5	CM		★
Biomedical Science I introduces foundational concepts of human physiology, basic clinical assessments, medical terminology, and scientific inquiry through the examination of real-world health conditions and disease cases.					
Biomedical Science II A/B	BHP2082A/B	.5	CM	**Biomedical Science I A/B**	ϟ
Biomedical Science II explores human anatomy and physiology alongside homeostatic mechanics, while building clinical investigative skills to solve medical mysteries.					
Biomedical Science III A/B	BHP2083A/B	.5	CM	**Biomedical Science II A/B**	ϟ
Biomedical Science III serves as the capstone experience by synthesizing advanced content, such as molecular diagnostics, immunology, and independent biomedical research while preparing students to take the Biotechnician Assistant Credential Exam (BACE).					
Biomedical Innovations A/B	BHP2008A/B			**Biomedical Science III A/B**	ϟ
In Biomedical Innovations, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health.					
Biomedical Science Career Connected Learning Internship 1	BHP2084	1	CM, NCAA	**Biomedical Science I A/B**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Biomedical Science Career Connected Learning Internship 2	BHP2085	1	CM, NCAA	**Biomedical Science Career Connected Learning Internship 1**	ϟ
This course requires 125 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					
Biomedical Science Dual Enrollment	BHP5060	1	CM, NCAA	**Biomedical Science I A/B**	ϟ
Students take an approved college course related to the program of study to earn college credit while developing knowledge and skills that support their academic and career goals.					

STEM CENTER

SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

AVIATION

AVAILABLE AT COL. ZADOK MAGRUDER

Ready to trade the ground for the clouds? The Aviation program is your launchpad to the skies! You'll discover the physics of flight, weather patterns, and aircraft navigation through interactive labs and simulator missions. Working alongside awesome classmates and teachers, you'll build sharp critical-thinking and problem-solving skills—learning what it takes to navigate real-world skies and lead the next generation of flight. The Aviation Center Program provides students with a rigorous educational experience focused on aviation and engineering.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Fundamentals of Aviation A/B- Center Programs	■ Intro to Aeronautics, Aviation, Aerospace Science & Technology I	■ Aeronautics, Aviation, Aerospace Science & Technology 2	■ Adv Aeronautics, Aviation, Aerospace Science & Technology III
■ Honors Biology with Engineering Connections- Center Programs	■ Honors Physics **OR** ■ AP Physics 1 with Aerospace Focus		■ Engineering or Science Elective **OR** ■ Adv Aeronautics, Aviation, Aerospace Science & Technology CCL Capstone **OR** ■ Dual Enrollment in Related Course
■ Introduction to Engineering Design- Center Programs (If Technology credit needed)			

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Introduction to Engineering Design- Center Programs	TEC2021A/B	.5		**Co-requisite: Algebra 1**	ϟ
Introduction to Engineering Design emphasizes the development of a design Students use computer software to produce analyze and evaluate models of projects solutions They study the design concepts of form and function and then use state-of-the-art technology to translate conceptual design into reproducible products.					
Honors Biology with Engineering Applications-Center Programs	SCI2001A/B	.5	CM, NCAA		↗
This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas using observations, experiments, models and technology in developing solutions to authentic problem-based scenarios while also exploring career opportunities. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities. Students in the Aviation STEM Center will learn how engineering applications are studied, applied and used to solve real world challenges from a scientific perspective.					
Intro to Aeronautics, Aviation, Aerospace Science & Technology I	SCT2031A/B	.5			★
This course introduces students to the principles of aeronautics, aviation science, and aerospace technology. Emphasizing professional behavior, teamwork, and an understanding of the roles and responsibilities in aviation and aerospace industries. Topics include the history of aviation, fundamentals of flight, and an introduction to aerospace careers. AOPA High School Aviation STEM Standards Sets 1–3					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Aeronautics, Aviation, Aerospace Science & Technology 2	SCT2032A/B	.5	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology I**	ϟ
Building on the foundational knowledge acquired in Course 1, this course focuses on aerospace systems and technologies, including aircraft systems, navigation, propulsion, and flight simulation. Students will engage in hands-on activities involving unmanned aircraft systems (drones) and gain insights into aerospace engineering concepts. The course is designed to prepare students for the FAA Part 107 Remote Pilot Certification, ensuring alignment with FAA standards					

Adv Aeronautics, Aviation, Aerospace Science & Technology III	SCT2033A/B	.5	CM-AL	**Aeronautics, Aviation, Aerospace Science and Technology II**	ϟ
This course delves deeper into advanced aerodynamics, meteorology, and aviation operations. Students will analyze flight dynamics, weather systems impacting flight, and airport operations management. They will also engage in flight simulation training and explore realworld applications of aerospace technologies.					

Adv Aeronautics, Aviation, Aerospace Science & Technology CCL Capstone	SCT2036	.5	CM-AL	**Aeronautics, Aviation, Aerospace Science & Technology I A/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project.					

CYBERSECURITY

AVAILABLE AT MONTGOMERY BLAIR, GAITHERSBURG, SENECA VALLEY, SPRINGBROOK, WHEATON, AND THOMAS S. WOOTTON

Crack codes. Stop hackers. Secure the future! The Cybersecurity program is your ultimate training ground for digital defense. Combine computer science, logic, and problem-solving to protect real-world systems in team-based, hands-on lab challenges. The Cybersecurity program prepares students to become confident, tech-savvy leaders in a rapidly growing field. Through hands-on projects, real-world problem-solving, and team collaboration, students gain the practical technical skills and critical thinking needed to succeed in STEM fields.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ AP Computer Science Principles with Python -Center Programs	■ Cybersecurity 1	■ Cybersecurity 2	■ Cybersecurity 3 **OR** ■ CCL Cybersecurity Internship 1 DP or CCL Cybersecurity Employer-Driven Capstone 1 DP **OR** ■ Dual Enrollment
■ Cybersecurity Center Essentials	■ AP English 10 with Seminar, Cybersecurity Focus-Center Programs	■ AP Computer Science Java- Center Programs	■ Ethical Hacking + .5 credit CS elective
			■ Upper Level Mathematics Elective

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Cybersecurity Center Essentials A/B	ITC2088A/B	.5			★
Students explore the foundations of cybersecurity through hands-on investigations of cyber threats and safe computing practices while developing problem-solving and technical skills. Through introductory ethical hacking activities, linux essentials and real-world security challenges, students build the knowledge and experience needed for advanced cybersecurity coursework and industry pathways.					
Computer Programming 1 - AP Comp Sci Prin A/B	ITC2084	.5	CM-AL		ϟ
Students explore computer science through problem-solving, data, cybersecurity, the internet, and Python programming while preparing for the AP Computer Science Principles exam.					
Cybersecurity 1 A/B	ITC2095A/B	.5			★
Students learn the fundamentals of computer networks and cybersecurity, developing hands-on skills to set up, maintain, and protect digital networks.					
Cybersecurity 2 A/B	ITC2096A/B	.5	CM-AL	**Cybersecurity 1 A/B**	ϟ
Students build skills in configuring, managing, securing, and troubleshooting network infrastructure while learning to implement security measures and reduce cybersecurity risks.					
Cybersecurity 3 A/B	ITC2097A/B	.5	CM-AL	**Cybersecurity 2 A/B**	ϟ
Students develop advanced cybersecurity skills in network security, threat mitigation, digital forensics, network monitoring, vulnerability assessment, and penetration testing.					
CCL Cybersecurity Internship DP	ITC2123	1	CM-AL	**Cybersecurity 1 A/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
Computer Programming 2 - AP Comp Sci Java A/B- Center Programs	ITC2081	.5	CM-AL	**AP Computer Science Principles**	ϟ
Students build advanced programming skills in Java, including object-oriented programming, algorithms, and data structures, while preparing for the AP Computer Science A exam and Certiport IT Specialist Java certification.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
English 10 AP Seminar, Cybersecurity Focus-Center Programs	ENG2092A/B	.5	CM, NCAA	**English 9**	ϟ
English 10: AP Seminar engages students in college-level reading, writing, and research through the exploration of contemporary issues and a wide range of texts. Students develop critical thinking, collaboration, and academic research skills as they analyze evidence, construct arguments, and communicate their ideas through written essays and individual and team presentations.					

ENGINEERING

AVAILABLE AT BETHESDA-CHEVY CHASE, COL. ZADOK MAGRUDER, POOLESVILLE, ROCKVILLE, SHERWOOD, AND WHEATON

The Engineering program gives students hands-on experience solving real-world challenges. Students work together on interactive design projects, building strong technical and problem-solving skills that prepare them to become confident leaders in engineering and technology fields.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Introduction to Engineering Design- Center Programs (Technology Education credit)	■ Engineering 1A/B	■ Engineering 2 Aerospace EngineeringA/B, **OR** ■ Civil EngineeringA/B, **OR** ■ Digital Electronics A/B	■ Engineering 3A/B **OR** ■ Engineering CCL Employer-Driven Capstone
■ Honors Biology with Engineering Applications- Center Programs	■ Honors or AP Physics 1	■ Honors Chemistry	■ Advanced/AP Science **OR** ■ Engineering Elective **OR** ■ Career Connected Learning
	■ Applied STEM Center Lab	■ Computer Science Elective (Python or Java)	

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Introduction to Engineering Design- Center Programs	TEC2021A/B	.5		**Co-requisite: Algebra 1**	ϟ
Introduction to Engineering Design emphasizes the development of a design Students use computer software to produce analyze and evaluate models of projects solutions They study the design concepts of form and function and then use state-of-the-art technology to translate conceptual design into reproducible products.					
Engineering 1 A/B	ENR2040A/B	.5			ϟ
Students explore how modern engineers help improve the world through diverse engineering fields, such as product design, mechanical design, infrastructure, and sustainability. Students learn and use some of the cutting edge tools engineers use in robotics, 3D modeling, programming, and prototyping.					
Engineering 2 Aerospace Engineering A/B	ENR2043A/B	.5	CM-AL	**Engineering 1 A/B**	ϟ
Students explore the physics of flight and space through software simulations and hands-on experiences. They bring concepts to life by designing and testing an airfoil, propulsion system, and a rocket.					
Engineering 2 Civil Engineering A/B	ENR2042A/B	.5	CM-AL	**Engineering 1B**	ϟ
Students learn important aspects of building and site design and development, and then they apply what they know to design a commercial building.					
Engineering 2 Digital Electronics A/B	ENR2041A/B	.5	CM-AL	**Engineering 1 A/B**	ϟ
Students explore the foundations of computing by engaging in circuit design processes to create combinational logic and sequential logic (memory) as electrical engineers do in industry.					
Engineering 3 A/B	ENR20417/B	.5	CM-AL	**Engineering 2 A/B**	ϟ
Students engage in an open-ended research experience in the PLTW Capstone course, a culminating program for those completing PLTW's high school offerings. They collaborate in teams, designing and developing original solutions to well-defined and justified real-world problems.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
CCL Engineering Employer-Driven Capstone I DP	ENR2054	.5	CM-AL	**Engineering 2 A/B**	ϟ
This course engages students in an employer-sponsored project that requires 250 hours of academic, technical, and employability skills to solve an authentic workplace challenge and present a culminating project .					

CCL Engineering Internship 1 DP	ENR2048	.5		**Engineering 2 A/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					

Honors Biology with Engineering Applications-Center Programs	SCI2001A/B	.5	CM, NCAA		↗
This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas using observations, experiments, models and technology in developing solutions to authentic problem-based scenarios while also exploring career opportunities. Honors will challenge students with faster-paced instruction, greater abstract thinking and enrichment opportunities.					

Computer Programming 1 - AP Comp Sci Prin A/B- Center Programs	ITC2084	.5	CM-AL		ϟ
Students explore computer science through problem-solving, data, cybersecurity, the internet, and Python programming while preparing for the AP Computer Science Principles exam.					

Computer Programming 2 - AP Comp Sci Java A/B- Center Programs	ITC2081	.5	CM-AL		ϟ
Students build advanced programming skills in Java, including object-oriented programming, algorithms, and data structures, while preparing for the AP Computer Science A exam and Certiport IT Specialist Java certification.					

Applied STEM Center Lab	TEC2020A/B	.5			★
Students explore the engineering design process through hands-on projects that integrate problem solving, technical drawing, prototyping, and the use of industry-standard tools and technologies. Emphasizing creativity, collaboration, and real-world applications, this introductory course builds the foundational skills needed for success in advanced engineering coursework and related career pathways.					

Advanced Science 1 Physics DP	SMCS2010	1	CM, NCAA, DP	**Algebra 1**	ϟ
PS-NGSS: Adv Sci1 Physics DP builds on the MCPS Honors Physics A and B curriculum with an emphasis on nonlinear systems solved through numerical methods and the integration of computer science, mathematics, vectors, spreadsheets, and simulations. Students explore core physics concepts while applying computational tools to analyze complex systems. This course is NGSS aligned.					



ENVIRONMENTAL SCIENCE & AGRICULTURE

AVAILABLE AT DAMASCUS AND NORTHWOOD

Ready to step outside the classroom and invent a greener future? The Environmental Science and Agriculture program is your ultimate outdoor adventure! Combine biology, smart tech, and hands-on science to tackle big challenges like climate change, sustainable farming, and ecosystem protection. Working alongside awesome classmates and teachers, you'll build sharp critical-thinking and problem-solving skills to help our world thrive. Environmental Science and Agriculture program prepares environmentally conscious leaders who are committed to supporting natural resources, solving environmental issues, and engaging in agricultural research and development.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Environmental Science Biology-Center Programs	■ Honors Chemistry	■ AP Environmental Science	■ Science Elective
■ Agriculture Science 1A/B Center Programs	■ Crop Science 2A/B	■ Crop Science 3A/B	■ Ag Science CCL Employer-Driven Capstone 1 DP **OR** ■ Agriculture Science CCL Internship

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Agriculture Science 1 A/B	AGB2019A/B	.5			★
This introductory course gives students an opportunity to explore agricultural science and natural resources through hands-on activities, projects, and real-world problem-solving. Students will discover how biology, the environment, and technology work together in agriculture and natural resource careers.					
Crop Science 2 A/B	AGB2020A/B	.5	CM-AL	**Agriculture Science 1 A/B**	ϟ
This course gives students hands-on experience exploring natural resources and ecology. Through projects and activities, students will learn about land use, water quality, environmental stewardship, and the role of environmental agencies in protecting and managing natural resources.					
Crop Science 3A/B	AGB2021A/B	.5	CM-AL	**Crop Science 2 A/B**	ϟ
In this course, students will deepen their mastery in natural resources, environmental science, and agricultural science. Students will conduct a year-long research project related to the agricultural field of study.					
Agriculture Science CCL Internship 1 DP	AGB2025	.5	CM-AL	**Crop Science 2 A/B**	ϟ
This course builds on the initial internship experience by requiring 250 hours of greater responsibility and demonstrating advanced workplace competencies in a structured authentic workplace (paid or unpaid).					
Environ Sci Biology A- Center Programs	SCI2049A	.5			★
Environ Sci Biology A builds on the MCPS Honors Biology A curriculum with an added focus on global ecological systems and interdisciplinary connections. Students study biological phenomena and engage in research to understand interactions within ecosystems. The course emphasizes scientific inquiry and the application of biology to global environmental issues.					
Environ Sci Biology BX- Center Programs	SCI2049BX	.5			★
Environ Sci Biology BX builds on the MCPS Honors Biology A curriculum with an added focus on global ecological systems and interdisciplinary connections. Students study biological phenomena and engage in research to understand interactions within ecosystems. The course emphasizes scientific inquiry and the application of biology to global environmental issues.					
Ag Science CCL Employer-Driven Capstone 1 DP	AGB2025	1.0	CM-AL	**Crop Science II**	ϟ
This course engages students in an employer-driven project that requires 125 hours of academic, technical, and employability skills to solve an authentic workplace challenge and the presentation of a culminating project. Students must complete CCL options I & II (250 hrs) to meet the basic requirements of the experience.					

ENVIRONMENTAL SCIENCE & HORTICULTURE

Ready to step into the greenhouse and turn your love for nature into real-world power? The Environmental Science and Horticulture program is your ultimate hands-on adventure! Combine biology, smart tech, and creative design to tackle big challenges like climate resilience, plant conservation, and urban greening. Working alongside awesome classmates and teachers, you'll build sharp critical-thinking and problem-solving skills to help local ecosystems—and the planet thrive.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Environmental Science Biology-Center Programs	■ Honors Chemistry	■ AP Environmental Science	■ Science Elective
■ Horticulture Science 1A/B	■ Horticulture Science 2A/B	■ Horticulture Science 3A/B	■ Horticulture CCL Internship 1 DP **OR** ■ Dual Enrollment **OR** ■ Horticulture Science CCL School-Based Enterprise 1 DP

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Horticulture Science 1 A/B	AGB2022A/B	.5			★
This course introduces students to the foundational principles of plant growth, basic plant anatomy, soil health, sustainable crop production, and design practices.					
Horticulture Science 2 A/B	AGB2023A/B	.5	CM-AL	**Horticulture Science 1 A/B**	ϟ
This course focuses on concepts of plant growth/ development, soil health, use of plants in landscape & turf settings, invasive plant species, and career opportunities.					
Horticulture Science 3A/B	AGB2024A/B	.5	CM-AL	**Horticulture Science 2 A/B**	ϟ
Students analyze sites and use design tools and methods to create and implement design plans, while deepening their understanding of the role of native plants in the designed environment. Students will also learn about plant breeding, new plant technologies, and modern farming methods.					
Horticulture CCL Internship 1 DP	AGB2033	.5	CM-AL	**Horticulture Science 2 A/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					
Horticulture Science CCL School-Based Enterprise 1 DP	AGB2037	.5	CM-AL	**Horticulture Science 2 A/B**	ϟ
This course requires 250 hours of hands-on experience operating a school-based business that delivers products or services to real customers.					
Environ Sci Biology A	SCI2049A	.5			★
Environ Sci Biology A builds on the MCPS Honors Biology A curriculum with an added focus on global ecological systems and interdisciplinary connections. Students study biological phenomena and engage in research to understand interactions within ecosystems. The course emphasizes scientific inquiry and the application of biology to global environmental issues.					
Environ Sci Biology BX	SCI2049BX	.5			★
Environ Sci Biology BX builds on the MCPS Honors Biology A curriculum with an added focus on global ecological systems and interdisciplinary connections. Students study biological phenomena and engage in research to understand interactions within ecosystems. The course emphasizes scientific inquiry and the application of biology to global environmental issues.					

MACHINE LEARNING AND DATA SCIENCE

AVAILABLE AT CHARLES WOODWARD

Teach computers to learn. Predict the future. Change the world! The Machine Learning and Data Science program is your playground for building tomorrow's AI (artificial intelligence). Combine coding, math, and smart algorithms to analyze real-world data and solve huge challenges in team-based, hands-on projects. Through hands-on learning and real-world problem-solving, students develop critical-thinking skills, computational fluency, and curiosity about how data informs decisions.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ AP Computer Science Principles with Python- Center Programs	■ Machine Learning and Data Science 1	■ Machine Learning and Data Science 2	■ Machine Learning and Data Science 3 **OR** ■ Machine Learning Data Science CCL Internship 1 DP **OR** ■ Dual Enrollment
■ Machine Learning & Data Science Center Essentials- Center Programs	■ AP English 10 Seminar with Center Focus	■ AP Computer Science Java- Center Programs	■ Modeling & Simulation (.5 credit)- Center Programs **AND** ■ Introduction to Artificial Intelligence (.5 credit)- Center Programs
			■ Math* (at least one math credit needs to be in statistics)

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Computer Programming 1 - AP Comp Sci Prin A/B- Center Programs	ITC2084	.5	CM-AL		ϟ
Students explore computer science through problem-solving, data, cybersecurity, the internet, and Python programming while preparing for the AP Computer Science Principles exam.					
Machine Learning & Data Science Center Essentials A/B	ITC2087A/B	.5			★
Students investigate how data can be collected, analyzed, and used to train machine learning models while developing foundational skills in data science, coding, and computational thinking. Through hands-on projects and real-world datasets, students learn to identify patterns, make data-driven decisions, and explore the ethical implications of artificial intelligence and emerging technologies.					
Machine Learning and Data Science 1 A/B	ITC2092A/B	.5			★
Students learn the fundamentals of data science and machine learning through Python, data analysis, visualization, and introductory machine learning techniques.					
Machine Learning and Data Science 2 A/B	ITC2093A/B	.5	CM-AL	**Machine Learning and Data Science 1 A/B**	ϟ
Students build intermediate data science and machine learning skills through advanced algorithms, data visualization, and hands-on projects that solve real-world problems.					
Machine Learning and Data Science 3 A/B	ITC2094A/B	.5	CM-AL	**Machine Learning and Data Science 2 A/B**	ϟ
Students explore advanced machine learning and AI concepts, including neural networks, ethical data use, computer vision, and natural language processing.					
Machine Learn Data Sci CCL Internship 1 DP	ITC2115	1	CM-AL	**Machine Learning and Data Science 2 A/B**	ϟ
This course requires 250 hours in a structured authentic workplace experience (paid or unpaid) aligned with their career interests and educational pathway.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
English 10 AP Seminar with Center focus	ENG2092A/B	.5	**CM, NCAA**	**English 9**	ϟ
English 10: AP Seminar engages students in college-level reading, writing, and research through the exploration of contemporary issues and a wide range of texts. Students develop critical thinking, collaboration, and academic research skills as they analyze evidence, construct arguments, and communicate their ideas through written essays and individual and team presentations.					

Computer Programming 2 - AP Comp Sci Java A/B- Center Programs	ITC2081	.5	CM-AL	**AP Comp Sci Principles Python**	ϟ
Students build advanced programming skills in Java, including object-oriented programming, algorithms, and data structures, while preparing for the AP Computer Science A exam and Certiport IT Specialist Java certification.					

Modeling and Simulation-Center Course	ITC2140	.5	CM-AL	**AP CS Java**	ϟ
Modeling & Simulation will be an advanced level course in the Machine Learning and Data Science Center pathway that will allow students to apply foundational to advanced level concepts to real world applications.					

Artificial Intelligence- Center Programs	BHP2008A	.5		**AP CS Java**	ϟ
Introduction to Artificial Intelligence is designed to advance student understanding of how machine learning and data science can be applied to real-world applications to solve and/or improve outcomes and end user experiences.					

SCIENCE, MATHEMATICS AND COMPUTER SCIENCE (SMCS)

AVAILABLE AT MONTGOMERY BLAIR, GAITHERSBURG, POOLESVILLE, SPRINGBROOK, WHEATON, THOMAS S. WOOTTON

Ever wonder how apps are coded, how smart tech is built, or how top scientists solve huge real-world mysteries? In the Science, Mathematics, and Computer Science (SMCS) program, you won't just learn about the future—you'll help create it! Here, science, math, and coding come together in epic hands-on projects. You'll team up with friends, dive into advanced challenges, and build the problem-solving powers you need to make a real impact. By blending these three subjects, students build strong problem-solving and critical-thinking skills needed to solve real-world challenges, independently and as a team.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
■ Fundamentals of Computer ScienceA/B	■ Algorithms and Data Structures A/B	■ SMCS Elective	■ Senior Research Project B (S1) ■ SMCS Elective (S2)
■ Advanced Science 1: Physics (S1) ■ Advanced Science 2: Chemistry (S2)	■ Advanced Science 3: Earth Space Systems (S1) & ■ Foundations of Engineering Technology A (S2)	■ Foundations of Engineering Technology B (S1)& ■ Senior Research Project A (S2)	■ SMC Math Elective
■ Research and Experimentation	■ Advanced Science 4: Biology	■ Applied Statistics (S1 or S2) & SMCS Elective (S1 or S2)	■ SMCS or General Elective
■ Center Precalculus A/B **OR** ■ Center Functions	■ Center Precalculus C/D **OR** ■ Center Analysis 1	■ Center Analysis 1 **OR** ■ SMCS Math Elective	■ SMCS or General Elective

**Internship Completed during the summer between grades 11 and 12; some internships may continue through grade 12 and may earn graduation credit; internships can be with universities, research labs, etc.*

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Fundamentals of Computer Science A/B	ITC2013A/B	.5			ϟ
Fundamentals of Computer Science is closely linked to freshmen Physics, Chemistry, and R&E. For example, Microsoft Excel and STELLA models numerical data and the motion of objects in real time (physics concepts). Later in the course, students will master the engineering of digital circuitry and wire electronic circuit boards! Additional topics taught include the basics of a Linux operating system, programming languages, number systems, recursion, and much more! Fundamentals of Computer Science prepares you for computer programming in high-level languages, covered in Algorithms and Data Structures. For the real computer enthusiast, you will be equipped to take on American Computer Science League competitions; you may even join Computer Club, Web Design Club or other computer based clubs. Students study both the theory and practice of computer use through a wide variety of activities developed to coordinate with their mathematics and science courses. Students design and implement their own original solutions to given problems, following current structured programming concepts in a high-level language. They learn the inner workings of computer systems and design and build circuitry to accomplish a given task.					
Advanced Science 1: Physics	SCI2010	1			ϟ
This course is required for the magnet program and taken in the fall semester of one's freshman year. Students study the same topics and instructional objectives as in the MCPS Honors Physics A and B curriculum. Nonlinear systems are emphasized and are solved by numerical rather than analytical methods. Computer science and mathematics are integrated with the use of vectors, spreadsheets, interfaces, and simulators.					
Advanced Science 2: Chemistry	SCI2011	1			ϟ
This course is required for the magnet program and is taken in the spring semester of one's freshman year. Students study the same topics and instructional objectives as in the MCPS Honors Chemistry A and B curriculum. Additional emphasis is placed on interdisciplinary topics, the production and conservation of energy, computer and mathematical concepts that are related to modeling, and student research. Students gather knowledge both through theoretical discussions and laboratory experiences, and culminate the course with the traditional "Chem R&E Project." Here students must apply both chemical and engineering principles as they push their limits in a flexible environment that provides them with an excellent opportunity to nurture skills that they will carry well beyond their educational years.					
Research and Experimentation	TEC2009A/B	.5			ϟ
This is an engineering, laboratory-based course in which students study, research, and apply concepts studied in their magnet science, mathematics, and computer science classes to solve real-world problems. Topics in Grade 9 include, but are not limited to, indirect measurement techniques and devices, data analysis, computer-aided drawing, materials science, research, and scientific instrumentation.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Center Precalculus A/B	MAT2029A/B	.5		**Honors Geometry**	↗
The properties of the real numbers and of functions, and the solution of equations in one variable are introduced. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope. The definition, properties,and application of matrices are studied. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope.					
Center Functions	MAT2036A/B	.5		**Honors Geometry**	↗
The properties of the real numbers and of functions, and the solution of equations in one variable are introduced. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope. The definition, properties,and application of matrices are studied. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope.					
Algorithms and Data Structures A/B	ITC2014A/B	.5		**Center Pre-Calc or Center Functions**	ϟ
An extended introduction to computer science topics through programming. Fundamental topics in this course include the design of solutions (algorithms) to problems, how data is structured, stored, organized, and operated on (data structures), in ways of various efficiencies (which we'll analyze), as well as a discussion on constructs of programming languages, primarily centered on object-oriented programming in Java. The ADSA and ADSB course sequence is a prerequisite for Analysis of Algorithms and the advanced computer science electives.					
Advanced Science 3: Earth Space Systems	SCI2014	1		**Advanced Science 1:Physics or Advance Science 2: Chemistry**	ϟ
This course is required for the magnet program and is taken during one's sophomore year. Earth Space Systems is a course that deals with the study of Earth as a system of interacting parts. In this course, you will learn about the Earth-Space System, and be able to understand how the seasons and weather come about. In the second semester, you will study the Solid Earth System, and understand rocks and minerals. Students study the same topics and instructional objectives as in the MCPS Earth Science A and B curriculum. Additionally, students study the interpretation of data from remote sensing instruments, computer and mathematical concepts that are related to science and engineering, and current research into the interactive process of earth evolution and global change. Emphasis is placed on the dynamic interaction of the solid earth, its atmosphere, and its oceans as special cases of more general processes occur.					
Foundations of Engineering Technology A	TEC2016A/B	.5			★
In Grade 10, the Research and Engineering course is linked instructionally to the magnet Earth and Space Science course. Topics include, but are not limited to, engineering design and construction, robotics, remote sensing, data collection with scientific instruments, and data analysis. Teamwork and research skills are emphasized.					
Advanced Science 4: Biology	SCI2013A/B	.5			ϟ
This course is required for the magnet program and is taken during one's sophomore year. It is the only full-year course in the required advanced science sequence. This course covers ecology, biochemistry, the origin of life, taxonomy, genetics and so much more. The topics of life science in this course range from evolution to microbiology and physiology. By the end of the course, students will have a thorough understanding of biological science and will be prepared to take the Magnet's specialized biology courses like Genetics, Cellular Physiology, or Marine Biology. Students study the same topics and instructional objectives as in the MCPS Honors Biology A and B curriculum. An interdisciplinary approach emphasizes the continued development of problem-solving skills and the collection and analysis of biological data. The culminating activity is a three-day field study of coastal ecosystems in which students collect, report, and evaluate physical, chemical, and biological data.					
Center Precalculus C/D	MAT2029C/D	.5		**Honors Geometry**	↗
The properties of the real numbers and of functions, and the solution of equations in one variable are introduced. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope. The definition, properties,and application of matrices are studied. The discussion of functions includes all forms of algebraic, exponential, logarithmic, and circular functions. The study of each function includes a precise definition, a consideration of graphs and applications, an analysis of distinguishing features, and an identification of related tangents and slope.					
Foundations of Engineering Technology B	TEC2016A/B	.5			★
In Grade 10, the Research and Engineering course is linked instructionally to the magnet Earth and Space Science course. Topics include, but are not limited to, engineering design and construction, robotics, remote sensing, data collection with scientific instruments, and data analysis. Teamwork and research skills are emphasized.					

COURSE TITLE	COURSE CODE	COURSE CREDIT PER SEMESTER	COURSE INFO	PREREQUISITES	GC★ H↗ or AL ϟ
Senior Research Project A	ENR2004A	.5			ϟ
Students conduct research projects based on an approved proposal. All students work either independently or on a team, with the guidance of their faculty advisor or mentor and the project coordinator. Requirements include the completion of a journal, project display, oral presentation, and final paper. Students begin their projects in the spring of their junior year and continue into the fall of their senior year. Students are expected to hold a research internship in the summer after their junior year in order to complete the course. Students typically work outside of the school facility for their internship at local universities (UMD, Catholic University, etc.) or a local research institution (NIH, NIST, Children's Hospital, etc.).					

Applied Statistics	MAT2039	.5		**AP BC Calculus B and Center Analysis 1B**	ϟ
Students learn sufficient statistical background to design, collect, and analyze data for surveys and research projects. All the objectives of the AP statistics curriculum are studied with a greater degree of rigor and sophistication and in a single semester. Students study simple probability theory, counting techniques, and a variety of probability distributions. These distributions justify tests of significance of parametric and nonparametric statistics.					

Center Analysis 1	MAT2037A/B	.5		**Center Precalculus D, Center Precalculus B, Center Precalculus C, Hon Precalculus B**	↗
This is the magnet version of calculus. While not limited to the AP curriculum, students will be prepared to sit for the AP BC Calculus exam after successfully completing this course. Boiled down to one sentence, calculus is simply the study of change. But what makes calculus so powerful is the elegant concept of limits that drives it at its core. By taking everything you've learned in math so far and mixing it up with the magic of limits, a new world of theoretical and applicable results opens up. Soon after covering the basics of derivatives and integrals, you'll be able to chug away with "The Limit Machine" on some of the fundamental concepts from physics to economics. Plus, in the Magnet we call this course Analysis because it covers a lot more information than a normal high-school calculus course. The delta-epsilon definition of the limit of a function is examined and applied to develop the ideas of differentiation and integration. All the non-vector objectives of the MCPS AP calculus curriculum are studied with a greater degree of rigor and sophistication. Students study infinite series, differential equations, and the analysis of the polar plane. Students apply this knowledge to solve problems in the sciences and economics. Students take the AP Calculus BC Exam after completing this course.					

Senior Research Project B	ENR2004A/B	.5			ϟ
Students conduct research projects based on an approved proposal. All students work either independently or on a team, with the guidance of their faculty advisor or mentor and the project coordinator. Requirements include the completion of a journal, project display, oral presentation, and final paper. Students begin their projects in the spring of their junior year and continue into the fall of their senior year. Students are expected to hold a research internship in the summer after their junior year in order to complete the course. Students typically work outside of the school facility for their internship at local universities (UMD, Catholic University, etc.) or a local research institution (NIH, NIST, Children's Hospital, etc.).					

MC² CENTER

THE MONTGOMERY COLLEGE MIDDLE COLLEGE

MIDDLE COLLEGE

In collaboration with MC, MCPS offers a Middle College program at seven high schools. The **Montgomery College Middle College (MC2)** program is offered at **Blake, Northwest, Northwood, Rockville, Watkins Mill, and Woodward** high schools and the P-TECH Middle College program is offered at **Clarksburg High School**. Each Middle College dual enrollment program prepares students to earn a Maryland state high school diploma and college credits toward an associate degree. The college credits are earned through a combination of courses, including Advanced Placement courses and corresponding test scores, and/or MC courses. Students are supported through a progressive transition from a traditional high school experience, to a college-like experience on the high school campus, and finally to full college coursework and experience on the college campus. During this transition, students are provided with dedicated college preparation, including preparation for the college placement and admission assessments. Students will matriculate through a pathway toward an associate's degree, beginning in Grade 9. Students apply to the Middle College programs in the fall of 8th grade.

For more information about Middle College programs, please visit *https://www.montgomeryschoolsmd.org/curriculum/partnerships/middle-college.aspx.*

SCHOOL	MIDDLE COLLEGE PROGRAM
James Hubert Blake High School	Montgomery College Middle College (MC2) **@ BLAKE**
Northwest High School	Montgomery College Middle College (MC2) **@ NORTHWEST**
Northwood High School	Montgomery College Middle College (MC2) **@ NORTHWOOD**
Rockville High School	Montgomery College Middle College (MC2) **@ ROCKVILLE**
Watkins Mill High School	Montgomery College Middle College (MC2) **@ WATKINS MILL**
Charles W. Woodward High School	Montgomery College Middle College (MC2) **@ WOODWARD**
Clarksburg High School	Pathways In Network and Information Technology Program **(P-TECH)**

MONTGOMERY COLLEGE

Montgomery County Public Schools
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MCPS Central Office
15 W. Gude Drive, Suite 400, Rockville 20850
240-740-3000 · montgomeryschoolsmd.org

HIGH SCHOOLS — HIGH SCHOOL DIRECTORY

School	Address	Phone	Website
Bethesda-Chevy Chase High School	4301 East-West Highway, Bethesda MD 20814	240-740-0400	bcc-hs.mcpsmd.org
Montgomery Blair High School	51 University Blvd. East, Silver Spring MD 20901	240-740-7200	blairs-hs.mcpsmd.org
James Hubert Blake High School	300 Norwood Road, Silver Spring MD 20905	240-740-1400	blake-hs.mcpsmd.org
Winston Churchill High School	11300 Gainsborough Road, Potomac MD 20854	240-740-5400	churchill-hs.mcpsmd.org
Clarksburg High School	22500 Wims Road, Clarksburg MD 20871	240-740-6000	clarksburg-hs.mcpsmd.org
Damascus High School	25921 Ridge Road, Damascus MD 20872	240-740-8250	damascus-hs.mcpsmd.org
Albert Einstein High School	11135 Newport Mill Road, Kensington MD 20895	240-740-2700	einstein-hs.mcpsmd.org
Gaithersburg High School	101 Education Blvd., Gaithersburg MD 20877	240-740-8300	gaithersburg-hs.mcpsmd.org
Walter Johnson High School	6400 Rock Spring Drive, Bethesda MD 20814	240-740-6900	wj-hs.mcpsmd.org
John F. Kennedy High School	1901 Randolph Road, Silver Spring MD 20902	240-740-0100	kennedy-hs.mcpsmd.org
Col. Zadok Magruder High School	5939 Muncaster Mill Road, Rockville MD 20855	240-740-5550	magruder-hs.mcpsmd.org
Richard Montgomery High School	250 Richard Montgomery Drive, Rockville MD 20852	240-740-6100	rm-hs.mcpsmd.org
Northwest High School	13501 Richter Farm Road, Germantown MD 20874	240-740-7100	northwest-hs.mcpsmd.org
Northwood High School	919 University Blvd. West, Silver Spring MD 20901	240-740-6950	northwood-hs.mcpsmd.org
Paint Branch High School	14121 Old Columbia Pike, Burtonsville MD 20866	240-740-9900	paintbranch-hs.mcpsmd.org
Poolesville High School	17501 West Willard Road, Poolesville MD 20837	240-740-2400	poolesville-hs.mcpsmd.org
Quince Orchard High School	15800 Quince Orchard Road, Gaithersburg MD 20878	240-740-3600	qo-hs.mcpsmd.org
Rockville High School	2100 Baltimore Road, Rockville MD 20851	240-740-6600	rockville-hs.mcpsmd.org
Seneca Valley High School	19401 Crystal Rock Drive, Germantown MD 20874	240-740-6400	senecavalley-hs.mcpsmd.org
Sherwood High School	300 Olney-Sandy Spring Road, Sandy Spring MD 20860	240-740-8110	sherwood-hs.mcpsmd.org
Springbrook High School	201 Valley Brook Drive, Silver Spring MD 20904	240-740-3800	springbrook-hs.mcpsmd.org
Watkins Mill High School	10301 Apple Ridge Road, Gaithersburg MD 20879	301-284-4400	watkinsmill-hs.mcpsmd.org
Wheaton High School	12401 Dalewood Drive, Silver Spring MD 20906	301-321-3400	wheaton-hs.mcpsmd.org
Walt Whitman High School	7100 Whittier Blvd., Bethesda MD 20817	240-740-4800	whitman-hs.mcpsmd.org
Charles W. Woodward High School	11211 Old Georgetown Road, Rockville MD 20852	240-740-8500	woodward-hs.mcpsmd.org
Thomas S. Wootton High School at Crown Farm	9400 Fields Road, Gaithersburg, MD 20878	240-740-1500	wootton-hs.mcpsmd.org

SPECIAL SCHOOLS AND PROGRAMS — HIGH SCHOOL DIRECTORY

School	Address	Phone	Website
Thomas Edison High School of Technology	12501 Dalewood Drive, Silver Spring MD 20906	240-740-2000	edison-hs.mcpsmd.org
Alternative Education Programs at the Blair G. Ewing Center	14501 Avery Road, Rockville MD 20853	240-740-5000	blairewing.mcpsmd.org
Longview School	13900 Bromfield Road, Germantown MD 20874	240-740-7830	longview-school.mcpsmd.org
RICA – John L. Gildner Regional Institute for Children and Adolescents	15000 Broschart Road, Rockville MD 20850	301-251-6900	rica-school.mcpsmd.org
Rock Terrace School	11400 Marcliff Road, Rockville MD 20852	240-740-4650	rockterrace.mcpsmd.org
Carl Sandburg Learning Center	1002 First Street, Rockville MD 20850	240-740-4340	sandburg-center.mcpsmd.org
Stephen Knolls School	10731 Saint Margarets Way, Kensington MD 20895	240-740-0050	knolls-school.mcpsmd.org

MCPS NONDISCRIMINATION STATEMENT

Montgomery County Public Schools (MCPS) prohibits illegal discrimination based on race, ethnicity, color, ancestry, national origin, nationality, religion, immigration status, sex, gender, gender identity, gender expression, sexual orientation, family structure/parental status, marital status, age, ability (cognitive, social/emotional, and physical), poverty and socioeconomic status, language, or other legally or constitutionally protected attributes or affiliations. Discrimination undermines our community's long-standing efforts to create, foster, and promote equity, inclusion, and acceptance for all. The Board prohibits the use of language and/or the display of images and symbols that promote hate and can be reasonably expected to cause substantial disruption to school or district operations or activities. For more information, please review Montgomery County Board of Education Policy ACA, *Nondiscrimination, Equity, and Cultural Proficiency*. This Policy affirms the Board's belief that each and every student matters, and in particular, that educational outcomes should never be predictable by any individual's actual or perceived personal characteristics. The Policy also recognizes that equity requires proactive steps to identify and redress implicit biases, practices that have an unjustified disparate impact, and structural and institutional barriers that impede equality of educational or employment opportunities. MCPS also provides equal access to the Boy/Girl Scouts and other designated youth groups.*

It is the policy of the state of Maryland that all public and publicly funded schools and school programs operate in compliance with:

(1) Title VI of the federal *Civil Rights Act of 1964*; and

(2) Title 26, Subtitle 7 of the Education Article of the Maryland Code, which states that public and publicly funded schools and programs may not

(a) discriminate against a current student, a prospective student, or the parent or guardian of a current or prospective student on the basis of race, ethnicity, color, religion, sex, age, national origin, marital status, sexual orientation, gender identity, or disability;

(b) refuse enrollment of a prospective student, expel a current student, or withhold privileges from a current student, a prospective student, or the parent or guardian of a current or prospective student because of an individual's race, ethnicity, color, religion, sex, age, national origin, marital status, sexual orientation, gender identity, or disability; or

(c) discipline, invoke a penalty against, or take any other retaliatory action against a student or parent or guardian of a student who files a complaint alleging that the program or school discriminated against the student, regardless of the outcome of the complaint.**

Please note that contact information and federal, state, or local content requirements may change between editions of this document and shall supersede the statements and references contained in this version. Please see the online version for the most up-to-date information at *www.montgomeryschoolsmd.org/info/nondiscrimination*.

For inquiries or complaints about discrimination against MCPS students* **	**For inquiries or complaints about discrimination against MCPS staff*** **
Department of Student Conduct and Appeals Student Welfare and Compliance Team Division of Equity and Organizational Development 850 Hungerford Drive, Suite 200, Rockville, MD 20850 240-740-3215 | SWC@mcpsmd.org	Human Resource Compliance Officer Division of Human Resources and Talent Management Department of Compliance and Investigations 15 West Gude Drive, Suite B400, Rockville, MD 20850 240-740-2888 | DCI@mcpsmd.org
For student requests for accommodations under *Section 504 of the Rehabilitation Act of 1973*	**For staff requests for accommodations under the** *Americans with Disabilities Act*
Section 504 Coordinator Division of Specialized Support Services, Department of School Counseling 850 Hungerford Drive, Room 170, Rockville, MD 20850 240-242-9363 | 504@mcpsmd.org	ADA Compliance Coordinator Division of Human Resources and Talent Management Department of Compliance and Investigations 15 West Gude Drive, Suite B400, Rockville, MD 20850 240-740-2888 | DCI@mcpsmd.org
For inquiries or complaints about sex discrimination under Title IX, including sexual harassment, against students or staff* **	
Department of Student Conduct and Appeals, Title IX Team Division of Equity and Organizational Development 850 Hungerford Drive, Suite 200, Rockville, MD 20850 240-740-3215 | TitleIX@mcpsmd.org	

**This notification complies with the federal Elementary and Secondary Education Act, as amended.*

***This notification complies with the Code of Maryland Regulations Section 13A.01.07.*

****Discrimination complaints may be filed with other agencies, such as the following: U.S. Equal Employment Opportunity Commission (EEOC), Baltimore Field Office, GH Fallon Federal Building, 31 Hopkins Plaza, Suite 1432, Baltimore, MD 21201, 1-800-669-4000, 1-800-669-6820 (TTY); Maryland Commission on Civil Rights (MCCR), William Donald Schaefer Tower, 6 Saint Paul Street, Suite 900, Baltimore, MD 21202, 410-767-8600, 1-800-637-6247, mccr@maryland.gov; Agency Equity Officer, Office of Equity Assurance and Compliance, Office of the Deputy State Superintendent of Operations, Maryland State Department of Education, 200 West Baltimore Street, Baltimore, MD 21201-2595, oeac.msde@maryland.gov; or U.S. Department of Education, Office for Civil Rights (OCR), 61 Forsyth St. S.W., Suite 19T10, Atlanta, GA 30303, 404-974-9406 and TDD: 800-877-8339, OCR.Atlanta@ed.gov, 1-800-421-3481, 1-800-877-8339 (TDD), OCR@ed.gov, or www2.ed.gov/about/offices/list/ocr/complaintintro.html.*

This document is available, upon request, in languages other than English and in an alternate format under the *Americans with Disabilities Act*, by contacting the MCPS Office of Communications at 240-740-2837, 1-800-735-2258 (Maryland Relay), or PIO@mcpsmd.org. Individuals who need sign language interpretation or cued speech transliteration may contact the MCPS Office of Interpreting Services at 240-740-1800, 301-637-2958 (VP) mcpsinterpretingservices@mcpsmd.org, or MCPSInterpretingServices@mcpsmd.org.



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THROUGHOUT YOUR HIGH SCHOOL CAREER

THE HIGH SCHOOL PROGRAM OF STUDY is a comprehensive list with descriptions of courses offered in **Montgomery County Public Schools.**

The course information is subject to change. Please scan the QR code or visit the website for up-to-date information on courses.

www.montgomeryschoolsmd.org/curriculum/programs-of-study/

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