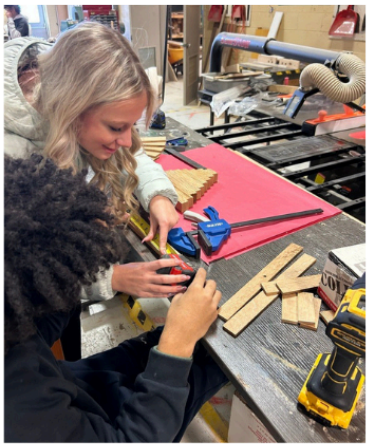
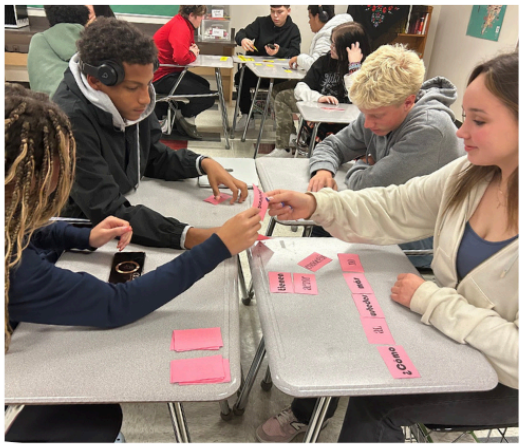
CAROLINE COUNTY PUBLIC SCHOOLS









High School Course Catalog 2026-2027

COLONEL RICHARDSON HIGH SCHOOL
COLONELS

NORTH CAROLINE HIGH SCHOOL
NC HS
BULLDOGS

CCTC
CAROLINE CAREER & TECHNOLOGY CENTER

Caroline County PUBLIC SCHOOLS
ONE FAMILY. ONE VISION.

CAROLINE COUNTY PUBLIC SCHOOLS

204 Franklin Street, Denton, Maryland 21629
410.479.1460 | www.carolineschools.org

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Caroline County Public Schools does not discriminate on the basis of sex, gender, race, color, national origin, disability, religion, ancestry, age, marital status, genetic information, sexual orientation or any other characteristic protected by law in its programs and activities, and provides equal access to the Boy Scouts and other designated youth groups.
Title 9 Coordinator: Robert Willoughby, Director of Human Resources

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CAROLINE COUNTY COURSE AND CREDIT REQUIREMENTS FOR GRADUATION

Core Subject	Credits Required
English	4 credits
Mathematics (*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)*	4 credits - 1 credit in Algebra I - 1 credit in Geometry - 2 additional math credits
Science	3 credits - 1 credit in Biology - 1 credit in Environmental Earth - 1 credit in either Integrated Science, Physics, or Chemistry
Social Studies	3 credits - 1 credit in U.S. History - 1 credit in World History - 1 credit in local, state, national government
Financial Literacy	1 credit

(For students entering Grade 9 in 2013-2014 school year and beyond)

Subject Area	Credits Required
Fine Arts	1 credit
Physical Education	1 credit
Health	1 credit
CS Discoveries OR Computer Science Essentials OR Principles of Engineering OR Introduction to Engineering Design	1 credit
Electives	3 credits
AND World Language	2 credits (of the same WL)
CTE Completer Program Sequence	*(Credits may vary by CTE major)*

Additional Course and Credit Requirements
Students must meet all local school system requirements including attendance and service learning.

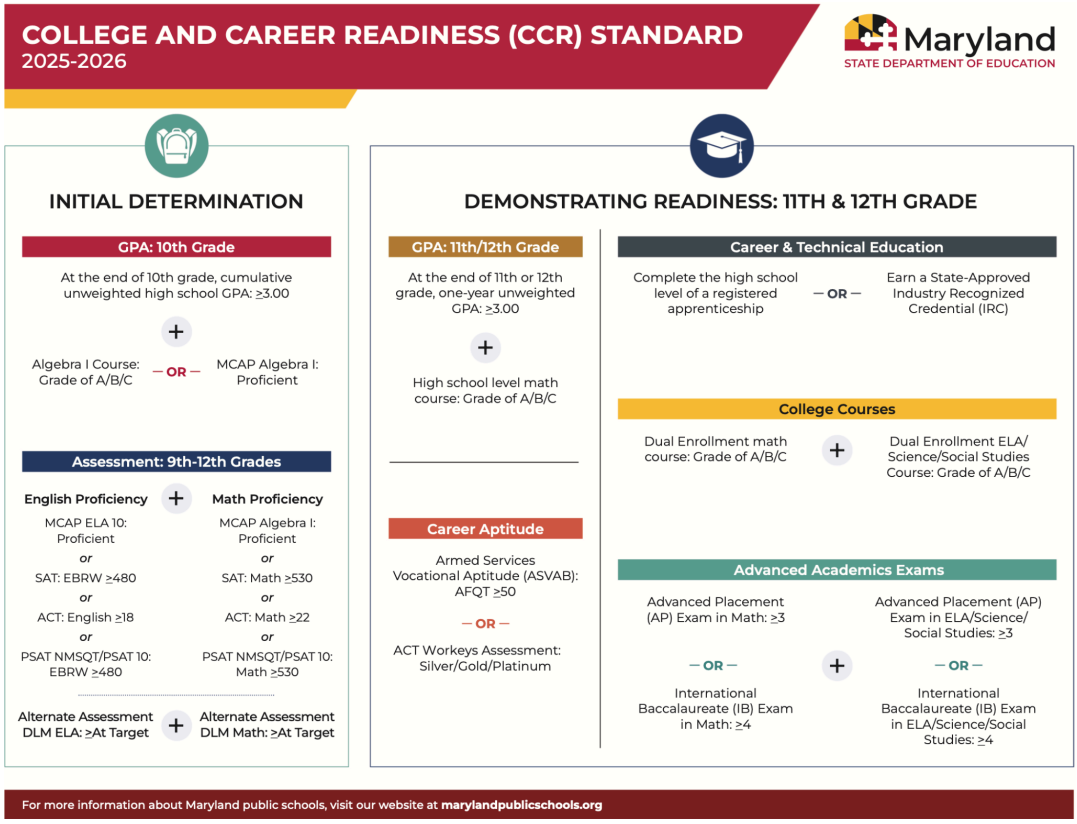
ASSESSMENT REQUIREMENTS FOR GRADUATION

To be awarded a Maryland High School Diploma, a student must meet the graduation assessment requirements. Assessments are required for graduation in Algebra I, English 10, High School Biology, and Government.
*** Additional information may be found on the CCPS website.

COLLEGE AND CAREER READINESS (CCR) REQUIREMENT OPTIONS

It is the goal of the State of Maryland and Caroline County Public Schools that all enrolled students shall meet the College and Career Readiness (CCR) standard before the end of 10th grade and no later than the time of the student's graduation from high school. Students will have opportunities to meet CCR at an equal rate regardless of the student's race, ethnicity, gender, address, socioeconomic status, or the language spoken in the student's home.

In January of 2024, the Maryland State Board of Education adopted a policy stating that students are considered college and career ready when they have earned academic success and Math Mastery. The chart below shows the ways students can meet this CCR standard at the end of 10th grade (initial determination) or in 11th and 12th grade (demonstrating readiness).



In the 2022-2023 SY, Maryland Public School Systems, in collaboration with local state accredited Community Colleges, were required to develop and implement a program of study for students who have not met the CCR standards by the end of the 10th grade.

If students have not met the CCR determination by the end of 10th grade, additional courses shall be delivered in the 11th and 12th grades. In addition, course enrollments may be adjusted before the 10th grade for students who are not on track to meet the CCR standard by the end of the 10th grade.

Caroline County Public schools has a Career Coaching program for students in grades 6 - 12. This program provides students the opportunity to learn about post-secondary education and career options that align with their strengths, interests and values and to select at least one post CCR pathway in which to enroll.

10th Grade College and Career Readiness	
Designation	By the end of 10th Grade, a student is designated either: ● Non-College and Career Ready (Non- CCR) or ● College and Career Ready (CCR) Each student shall be assessed no later than the end of 10th grade by a method adopted by the State Board to determine whether the student meets the CCR standard.

Non-CCR	CCR Pathways **
Individualized Learning Plan (ILP) needed and may include:	Pathways once CCR is achieved may include:
<u>Additional course content</u> Additional modules that would be offered during specified courses the student is already taking.	<u>Dual Enrollment/Early College</u> Students may enroll at Chesapeake College and complete college-level courses while still in high school. CCPS will pay for TWO CLASSES PER SEMESTER, which includes tuition, books, and required materials for qualified students completing dual enrollment courses as part of their schedules (CCR students only). Students must be at least 16 years old and have a cumulative GPA of 2.5 to participate.
<u>Summer programming</u> Opportunities for students to increase their knowledge and skills prior to their next course.	<u>Advanced Placement (AP) Pathway</u> The AP program from the College Board has students take numerous AP courses. ● Take at least 5 AP Classes ● 2 courses in the same content area ● At least 2 content areas must be included ● 3 or higher on at least 3 AP exams ● A grade of C or higher in 5 AP courses
<u>After school tutoring</u> Opportunities for students to increase their knowledge and skills while enrolled in their next course.	<u>CTE Pathway</u> is an education pathway that provides students with the academic, technical, and real world knowledge, skills and experience they need to be prepared for a variety of career options.
<u>Additional support opportunities</u> Additional supports that may be needed for a student's success	<u>Youth Apprenticeship (YA) in Maryland Program</u> Open to Juniors and Seniors ages 16+; includes one credit of relevant classroom education and a minimum of 450 hours of PAID work experience with a YA approved business partner.

** Students may take classes in more than 1 pathway

** In Year 2031, CCR Pathways will be restricted to students with a CCR designation.

PROMOTION & GRADUATION REQUIREMENTS

1. Promotion from one grade to the next will require the accumulation of credits based on the following schedule. The accumulation of earned credits (core and elective credits) will determine promotion to the next grade. The following minimum number of credits are required:

   Grades 9 to 10 - Earn six (6) credits, three (3) of which must be in the "CORE" subject areas of English, Mathematics, Science, or Social Studies.

   Grades 10 to 11 - Twelve (12) credits, including at least five (5) credits in the areas of English, Mathematics, Science, or Social Studies

   Grades 11 to 12 - Sixteen (16) credits, including at least eight (8) credits in the areas of English, Mathematics, Science, or Social Studies.

2. In order to qualify for a Maryland high school diploma from a public high school in Caroline County, students must meet the requirements established by the Maryland State Board of Education in Bylaw 13A.03.02.03 and the Caroline County Board of Education.

   a. Course and credit requirements for graduation are summarized on the chart on page 1.
   b. Assessment requirements for graduation are summarized on the chart on page 2.
   c. Students shall satisfactorily complete four years of approved study beyond the eighth grade unless a waiver is granted by the Superintendent of Schools in accordance with Board of Education Regulation III.33.40.01, Alternatives to a Four-Year High School Enrollment.
   d. At least four credits must be earned after the completion of 11th grade.
   e. Credits toward graduation may also be earned in the following ways with advanced approval:

      i. Summer Semester (credit recovery/make-up credit only)
      ii. Evening Program
      iii. Career Internship
      iv. College Courses (Dual Enrollment)
      v. Youth Apprenticeship

   f. Credits earned in a state accredited non-public school will count toward graduation. Credits earned at an unaccredited non-public school must be validated according to procedures listed in Board Policy III.32.50, Transfer of Students from a Non-Accredited School or Program. No transfer of credit for courses in religious education will be accepted per the provisions of State Board of Education regulations, COMAR 13.A.04.05.01D.
   g. Before a student will be permitted to participate in graduation exercises, he/she must have completed all graduation requirements and must have met all obligations to the school.
   h. Any approved college course (three, four or five credits) that is part of the Dual Enrollment program will receive one (1) high school credit if a grade of D or better is earned. In addition, if the college course is substituted in place of a high school course, the grade (A-E) will count toward the student's grade point average. If more than one (1) college course is taken as a substitute for a high school course, then the student will designate in writing prior to the start of the semester the primary course for which the grade will count as part of the student's grade point average.

ACADEMIC WAIVERS

Students who have junior or senior status may request an alternative to a four-year enrollment by presenting a completed application package that adheres to particular timelines outlined for each academic waiver. The following program options are available:

- Career Internship allows a student to gain work experience related to his or her career major.
- Dual Enrollment allows a student to enroll in an approved college and earn credits that count as both college and high school credit. See below for a list of Dual Credit course offerings. (Articulated agreement with Chesapeake College & Washington College).
- Early College Admission allows a student to attend an approved college or postsecondary school full-time during his or her senior year and to use those credits for high school graduation.
- Early Completion allows a student to complete after three and one-half years of attendance to attend college, vocational, technical or other post-secondary school program or the military full time, provided all other graduation requirements have been met.
- Youth Apprenticeship allows a student to gain on the job training with a Maryland Apprenticeship Training Council (MATC) approved business partner.

Students on Academic Waivers who drop college courses must re-enter high school. Students who drop a dual enrollment course after the college drop and add period will be ineligible for graduation honors such as valedictorian and salutatorian.

2026 - 2027 School Year courses that earn credit for both high school and college are below:

Chesapeake College Course	Caroline County Public Schools
English 101	English 11/English 12 (if taken in Senior year)
English 102	English 12
Math 204	Statistics
Math 115	Pre-Calculus
Math 120	Calculus
Hist 132	World History
PSC150	Psychology
SOC 161	Sociology
Chem 121	Chemistry
SCI 141	Physical Science/Integrated Science
PHY 215	Physics
Art 101	Foundations of Art
Music 101	Foundations of Music
Span 121	Spanish II

ADMISSION REQUIREMENTS FOR STATE UNIVERSITIES & COLLEGES

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

As prescribed by the Board of Regents, the Maryland University System Universities listed above expect all applicants, at a minimum, to have completed by graduation the following coursework: 4 years of English, 3 years of History or Social Science, 3 years of Science in at least two different areas, with at least two lab experiences, 2 years of the same World Language, and 4 years of Mathematics, which must include Algebra I, Geometry, and Algebra II. Students who complete Algebra II before their senior year must complete a senior year mathematics course that is intensive in algebra and expands on algebra foundations developed during Algebra II.

The above criteria represents the minimum requirements for admission. Successful applications typically present academic credentials that exceed the minimum, including: Advanced Placement (AP) courses, Dual Enrollment, and additional electives.

ARTICULATION AGREEMENTS

An articulation agreement is a written, formal document that specifies the process by which a high school student may earn college credit through successful completion of certain high school courses where students achieve learning outcomes, skills and abilities comparable to those covered in college courses. Generally, the college credit is not awarded until the student is enrolled at the college issuing the articulation agreement and until the student has satisfactorily completed a designated number of credit hours or terms. Because the courses involved are at the high school level, the student pays no tuition.

The opportunity for high school students to enroll in courses approved by a postsecondary institution for college credit comes through transcripted credit courses. The student is able to receive credit toward a high school diploma for such courses and upon graduating from high school may receive college credit from the postsecondary institution involved and other colleges and universities, which accept transfer credit from that postsecondary institution.

Program Name	Name of Institution offering credit bearing agreement
Academy of Health Professions	Stevenson University
Advanced Manufacturing Professionals	Chesapeake College
Automotive Technician	Community College of Baltimore County Montgomery College Pennsylvania College of Technology
Computer-Aided Drafting & Design	Chesapeake College
Construction Technology	Chesapeake College
Curriculum for Agricultural Science (CASE)	Blue Ridge Community and Technical College Chesapeake College Delaware Valley University Michigan State University Rutgers University St. Mary's College of Maryland University of Maryland- Institute of Applied Agriculture (UMCP)
Firefighter & Emergency Medical Responder (MFRI)	Chesapeake College
Project Lead the Way - Biomedical Sciences	Chesapeake College Stevenson University
Project Lead the Way - Computer Science	Chesapeake College Salisbury University Towson University Washington College Frostburg University University of Maryland
Project Lead the Way - Engineering	Rochester Institute of Technology University of Maryland Baltimore County
Teacher Academy of Maryland	Bowie State University Chesapeake College College of Southern Maryland Coppin State University Frostburg State University Hood College McDaniel College Morgan State University Salisbury University St. Mary's College of Maryland Stevenson University Towson University

ASSESSMENTS

WIDA ACCESS

WIDA ACCESS is an English language proficiency test that measures students' academic English language skills. This assessment is given annually to multilingual learner students in Grades K-12. It tests students' English language proficiency in four domains: Listening, Reading, Speaking, Writing. Test scores also help teachers track your child's progress in learning academic English and help schools decide what English language support services to provide.

Accuplacer Test

The Accuplacer Test is a placement test used by community colleges, four-year colleges, and technical schools around the world. This nationally-normed test provides fast, accurate assessment of an incoming college students' ability to access college freshman coursework. It also identifies students who need remedial coursework.

Advanced Placement Exams

The Advanced Placement Exams (AP) are given in May at both North Caroline High and Colonel Richardson High Schools. **Students who take AP courses are expected to take AP exams.** Over 400 college institutions may grant college credit to students who earn a qualifying score of 3, 4, or 5.

ACT

The American College Test (ACT) is a widely accepted college entrance exam. It assesses high school students' general educational development and their ability to complete college level work. The multiple-choice tests cover four skill areas: English, Mathematics, Reading, and Science. The Writing Test, which is optional, measures skills in planning and writing a short essay. Students should check with the college of their choice to determine which entrance exam is required by the institution. If a student qualifies for the free and reduced lunch program he/she qualifies for two free tests beginning in 11^{th} grade.

ASVAB

The Armed Services Vocational Aptitude Battery (ASVAB) test is given to juniors. The ASVAB is a comprehensive aptitude test and it is given, free of charge, to all juniors in our school system. An aptitude is the capability a student has developed through experience or education that indicates his/her current readiness to become proficient in a certain type of activity, given the opportunity to do so. The instrument provides comparative scores for verbal, math, science, and technical areas which are comparable to SAT results. A Department of Defense employee administers the test but the scores are not given to military recruiters unless the student gives permission. This is an excellent tool to use as students finalize his/her career choices.

Career and Technical Education Assessments

CTE students will have the opportunity to earn state-issued professional licenses, full industry certification or pathway industry certification by participating in various industry assessments. See programs for specific examples of industry assessments.

High School Assessments

The Maryland Comprehensive Assessment Program (MCAP) includes Government High School Assessment (HSA), Maryland Life Science Integrated Science Assessment (LSMISA), Algebra I, Geometry, and English 10.

PSAT

The Preliminary Scholastic Assessment Test (PSAT) gives students the opportunity to practice for the SAT I. The PSAT allows the student to find information about various colleges and enter scholarship competitions. Caroline County administers the PSAT to all 10th graders at no cost to the students. Eleventh grade students may be eligible to retake the PSAT to determine if they qualify for the National Merit Scholarship . Students who take the PSAT are provided access to the College Board's Big Future program that indicates AP testing potential and allows them to search for colleges and prepare for the SAT.

SAT

The Scholastic Assessment Test (SAT) consists of two different tests, the SAT I and the SAT II. The SAT I measures a student's critical reading, mathematics and writing skills. Caroline County offers the SAT I to all 11th graders at no cost to the students. The SAT II is designed to measure a student's knowledge in a specific subject and his/her ability to apply that knowledge. SAT II tests are available in areas such as literature, sciences, languages, math and history. Students should check with the college of their choice to determine which entrance exam is required by that institution. If a student qualifies for the free and reduced lunch program that student also qualifies for two free SAT tests beginning in 11th grade and four (4) free college applications.

AAPPL

The AAPPL Assessment of Performance toward Proficiency in Languages (AAPPL) is a performance assessment of standards-based language learning across the three modes of communication (Interpersonal, Presentational, and Interpretive) as defined by the National Standards for Foreign Language Learning. The AAPPL assesses Interpersonal Listening/Speaking, Presentational Writing, Interpretive Reading, and Interpretive Listening, and ratings are assigned according to the ACTFL Performance Descriptors for Language Learners.

BALANCED CURRICULUM

- Every student is required to earn 4 credits of Mathematics and English. A Mathematics course must be taken each year of high school.
- Every student is required to earn 3 credits in Science and Social Studies. Students are advised to take a course in Science and Social Studies every year.
- Students may take only one Physical Education course per semester.

CAROLINE COUNTY PUBLIC SCHOOLS
POST COLLEGE AND CAREER READINESS (POST-CCR) PATHWAYS
2025 - 2026 SCHOOL YEAR

College and Career Pathways	Majors/Programs of Study
Career & Technical Education (CTE)	
Work Based Learning	Apprenticeship Maryland Program
Construction & Development	Computer Aided Drafting & Design Construction Technology
Consumer Services, Hospitality & Tourism	Careers in Cosmetology Food & Beverage Management (Prostart)
Environmental, Agricultural & Natural Resources	CASE (Curriculum for Agricultural Science)
Health & Biosciences	PLTW Biomedical Sciences Academy of Health Professions
Human Resources Services	-Teacher Academy of Maryland (TAM) -Fire Fighter and Emergency Medical Responder (MFRI) -Military Service-Navy Junior Reserve Officers Training Course (NJROTC)
Information Technology	PLTW Computer Science
Manufacturing, Engineering & Technology	Advanced Manufacturing Professionals PLTW Engineering
Transportation Technologies	Automotive Technician
Non-CTE	
Non-CTE	Liberal Arts AP Pathway Dual Enrollment/Early College

**** Career Majors are identified as part of the Plan of Study completed in Grade 8.**

CAROLINE COUNTY CAREER & TECHNICAL EDUCATION (CTE)
COMPLETER PROGRAM SEQUENCES

CTE PARTICIPANT—The term 'CTE participant' means an individual who completes one CTE course in a career and technical education program of study.

CTE CONCENTRATOR—The term 'CTE concentrator' means a student who has successfully completed two CTE courses in a single career and technical education program of study.

CTE COMPLETER - Students who are CTE concentrators are expected to complete all courses in a program of study (per Perkins V and MSDE) at which time they are considered a program completer.

All CTE Completers will be required to take an industry or program assessment in order to pass the course. All required industry assessments are given at no cost to the students.

Construction and Development: Advances in science and technology will continue to drive innovation in the design, construction, and maintenance of buildings and infrastructure, including new design concepts, construction materials and methods, and the application of information technology. Construction-related programs allow students to advance their knowledge in specific construction trades, design or construction management.

Construction Technology/Computer Aided Drafting and Design (CADD) I
80840 Foundations of Building and Construction Technology - CORE
871 Computer Aided Drafting and Design – CADD I
873 Residential and Light Commercial Construction Technology I
✶ **Must complete NCCER & CADD assessments.**

Construction Technology/Computer Aided Drafting and Design (CADD) II
870 Fundamentals of Construction and Drafting
872 Computer Aided Drafting and Design II – CADD II (elective credit for Construction Technology)
874 Residential and Light Commercial Construction Technology II
✶ **Must complete NCCER & CADD assessments**

Consumer Services, Hospitality, and Tourism: Programs in consumer services, hospitality and tourism prepare students for a variety of career options. Each program includes options for students to earn industry certifications and college credit in the career field. Students, who are interested in culinary arts, restaurant management, lodging management, or cosmetology, engage in real-world experiences through internships and mentoring opportunities. These options allow students to apply their classroom instruction in meaningful ways and give them (through licensure or certification) a head start into the profession.

Careers in Cosmetology
835 Principles & Practices of Cosmetology
836 Advanced Cosmetology
837 Mastery of Cosmetology
838 Cosmetology Practicum
or
839 Cosmetology Practicum
✶ **Must complete State Board Examination in both theory and practice.**

Food and Beverage Management (Prostart)

901 Food Service Professional I
903 Food Service Practicum I
902 Food Service Professional II
904 Food Service Practicum II

✶ **Must complete Prostart assessments**

Environmental, Agriculture and Natural Resources: The agricultural sector is a highly competitive global industry creating new challenges in identifying global and domestic markets, improving business planning, financing, risk management, and productivity; and reducing costs. Advances in science and technology, in particular biotechnology, will continue to drive innovation and growth in this career cluster. Growing public concerns over natural resources, environmental quality, and public health will continue to expand the role and scope of the natural resource management and environmental services sectors.

Curriculum for Agricultural Science Education (CASE)

8160 Agriculture, Food and Natural Resources
8190 Principles of Agriculture – Animal Science and/or 8540 Principles of Agriculture - Plant Science 8550 Animal and Plant Biotechnology
8555 Agriculture Business, Research & Development – Capstone

Health and Biosciences: Career and Technology Education programs in the Health and Biosciences cluster focus on preparing dedicated professionals with the knowledge and skills necessary to pursue challenging and rewarding careers and further education. These programs require students to apply knowledge learned in science and mathematics to professions in the health and biosciences field. These careers are among the fastest growing and highest in demand in the country as the population ages and health care needs continue to increase. These CTE programs prepare students for positions in direct patient care settings, research and laboratory facilities, as well as for opportunities in business and management related to health care. These programs also provide career development experiences for students in a wide variety of exciting careers.

Academy of Health Professions

80801 Foundations of Medicine & Health Science
80802 Medical Specialty
80803 Allied Health Internship
80804 Structures and Functions of the Human Body
80805 Clinical Internship

✶ **Must complete CNA assessment**

PLTW – Biomedical Sciences

80880 Principles of Biomedical Science
80881 Human Body Systems
80883 Medical Interventions
80882 Biomedical Innovations

✶ **Must complete each end of course assessment.**

Human Resource Services: Advances in scientific knowledge, and increased public awareness of social problems and issues are contributing to a demand for high-quality social services. Public concerns over crime, security and emergency response, and the increased demand for legal intervention in business and communities will continue to drive the growth of law enforcement, emergency and legal services. The continuous need for education professionals, especially in the critical shortage areas, offers creative ways to engage young people early on in the teaching profession.

Firefighter and Emergency Medical Responder (MFRI)
(Located at Upper Eastern Shore Regional Training Center – Queen Anne's County)
80832 Firefighter I
80831 Emergency Medical Care
80836 Hazardous Materials/Operations
80835 Truck Company Fireground Operations/RTVMR
80837 Firefighter II
900501 TM90
✶ **Must pass Firefighter I assessment to continue in program**

Military Service-Navy Junior Reserve Officers Training Corp (NJROTC)
(Located at Easton High School-Talbot County)
85001 Naval Science I
85002 Naval Science II
85003 Naval Science III
***Must complete ASVAB assessment**

Teacher Academy of Maryland (TAM)
80821 Human Growth and Development
80826 Teaching as a Profession
80827 Foundations of Curriculum and Instruction
80828 Education Academy Internship
✶ **Must complete ParaPro assessment**

Information Technology: Information Technology (IT) professionals will face increasing pressure to design, develop, implement, and support complex and reliable IT solutions that will meet the needs of external and internal customers. This will require that IT professionals have the skills to determine customer business needs and requirements, manage complex projects, and integrate software and hardware solutions. Maryland CTE programs include opportunities for students to focus on software development, programming, IT hardware and networking technologies. Cyber Security is an increasingly important part of IT programs and represents expanding opportunities for employment and advanced education and training in Maryland.

PLTW - Computer Science
80860 PLTW Computer Science Essentials (May be used for CTE or Tech Ed credit, but not both.)
80861 PLTW AP Computer Science Principles
80862 PLTW AP Computer Science A
80863 PLTW Cybersecurity
***Must complete AP testing for Computer Science Principles and Computer Science A**
✶ **Must complete each end of course assessment.**
*Additional computer science credit available through dual enrollment with Chesapeake College.

Manufacturing, Engineering and Technology (MET): Programs in the Manufacturing, Engineering, and Technology Cluster prepare students for a variety of career options through Maryland's Career and Technology Education Programs of Study that lead to postsecondary education and employment. Students engage in real world projects that strengthen their understanding of science, technology, engineering, and mathematics (STEM). They work in teams to complete challenging projects related to design, manufacturing process applications, and quality improvements. Graduates are being educated for the high-performance workplace using advanced technologies. Employers in the manufacturing and engineering sectors need a pipeline of highly qualified employees to remain internationally competitive, to develop and use new technologies, and to continuously improve the quality of life for Marylanders.

Advanced Manufacturing Professionals (AMP)
80806 Foundations of Advanced Manufacturing Production I
80807 Foundations of Advanced Manufacturing Production II
80808 Applications of Advanced Manufacturing I
80809 Applications of Advanced Manufacturing II
***Must complete MSSC assessments in Safety and Manufacturing Processes and Production**

Project Lead the Way (PLTW) – Engineering
80872 Introduction to Engineering Design
80871 Principles of Engineering
80874 Digital Electronics
80873 Civil Engineering and/or 80876 Aerospace Engineering
80875 Engineering Design and Development
✶ **Must complete each end of course assessment.**

Transportation Technologies: Advances in science and engineering are producing major innovations in transportation technology, resulting in faster movement of people and goods at lower costs and with less environmental and safety risks. These innovations require higher skills to manage and maintain transportation equipment. High school programs provide opportunities for students to prepare for careers in the transportation industry.

Automotive Technician
Maintenance and Light Repair I (all three classes taken as a cohort)
880 Automotive – Suspension and Steering
881 Automotive Engine Performance A
883 Automotive – Brakes
✶ **Must complete ASE industry assessments**

Maintenance and Light Repair II (all three classes taken as a cohort)
882 Automotive – Electrical/Electronic Suspension
884 Automotive Heating and Air Conditioning Systems
885 Automotive Engine Performance B
✶ **Must complete ASE industry assessments**

The Apprenticeship Maryland Program is the result of a partnership between the Maryland State Department of Education of Labor, Licensing and Regulation. The program provides high school students with all aspects of an apprenticeship experience including work-based learning, related classroom instruction, and one-on-one mentoring from an industry professional. Participating students start the program in their junior or senior year and complete at least one credit of classroom instruction and a minimum of 450 hours of work-based training under the supervision of an eligible employer. The workplace component is a paid (at least minimum wage) mentored, on-the-job work experience with a written learning plan and a formal agreement among the student, school, and employer.

80815 Apprenticeship Related Instruction
80816 Apprenticeship Work-Based Learning Experience 1
80817 Apprenticeship Work-Based Learning Experience 2
80818 Apprenticeship Work-Based Learning Experience 3

*To enroll in this program, students are required to complete the Apprenticeship Maryland student application packet. A meeting with the Apprenticeship Coordinator and the student's parent/guardian will also be held.

CAROLINE COUNTY NON-CTE
COMPLETER PROGRAM SEQUENCES

Liberal Arts: This career major is for students who are non-CTE majors. Students who opt to be Liberal Arts majors must complete two years of the same world language and a minimum of three (3) of the following elective courses in order to meet graduation requirements.

English as a Foreign Language Elective (1208 Only)
English as a Foreign Language 2 Elective (1209 Only)
Speech and Presentation Technology (123)
Creative Writing (125)
Contemporary Issues (207)
Physical & Cultural Geography (209)
Psychology (216)
Sociology (217)
Business Law (214)
Algebra II (308)
Statistics (311)
Discrete Math (314)
Calculus (315)
Pre-Calculus (322)
Chemistry (405)
Physics (407)
French III (503)
French IV (504)
Spanish III (510)
Spanish IV (511)
Drawing II (922)
Color Theory II (924)
3D Art II (926)
Art Studio I (927)
Art Studio II (9927)
Instrumental Advanced Theory (933)
Theater Arts II (1241)
Human Growth & Development (80821)
Child Development Lab (80822)
Any Advanced Placement course
Dual Enrollment

ENROLLMENT NUMBERS

- In keeping with Board of Education practice, a course may not be offered if fewer than ten students are enrolled.
- When CTE requests exceed program capacity, a selection process is used to identify students for enrollment in these programs.
- Some courses are taught only at one campus and students are strongly encouraged to participate in cross-campus opportunities.

GRADUATION RECOGNITION

A tiered recognition program based on the standards below will be used to recognize academic achievement at graduation. Students in all programs and concentrations will have the opportunity to earn these recognitions.

Recognition GPA Minimum

- Distinguished Honors 3.80
- High Honors 3.50
- Honors 3.20

MARYLAND HIGH SCHOOL CERTIFICATE OF COMPLETION

In accordance with COMAR, a Maryland High School Certificate shall only be awarded to students with significant cognitive disabilities who cannot meet the requirements for a diploma, but who meet one of the following standards:

1. The student is enrolled in an educational program for at least 4 years beyond eighth grade, or its age equivalent, and is determined by an IEP team with the agreement of the parents of the student, to have developed appropriate skills for the individual student to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life, with the world of work including but not limited to:

    a. gainful employment;
    b. work activity centers;
    c. sheltered workshops;
    d. supported employment; or

2. the student has been enrolled in an education program for 4 years beyond grade 8 or its age equivalent and will have reached age 21 by the end of the student's current school year.

The decision to award a student with a disability a Maryland High School Certificate of Program Completion will not be made until after the beginning of the student's last year in high school unless the student is participating in the Maryland Alternate Assessments. An Exit Document that describes the student's skills shall accompany the Maryland High School Certificate of Program Completion.

MARYLAND SCHOLARS

Maryland Scholars is a course of study that prepares high school students to be college and career-ready.

Maryland Scholars Course of Study

4 credits of English
4 credits of Math (Including Algebra 1, Geometry, Algebra 2)
3 credits of Lab Science (Biology, Chemistry, Physics [preferred])
3 credits of Social Science (U.S. History, World History, Government)
2 credits of the same World Language
(Students must attain a 3.0 GPA to qualify.)
(Courses underlined exceed state graduation requirements.)

Financial Rewards for Maryland Scholars

Academic Competitiveness Grants (ACG) - the U.S. Department of Education has allocated an additional $4.5 billion in college tuition grants over five years for State Scholars who qualify for federal financial aid. Students who are Pell-eligible and completed the Maryland Scholars Course of Study could qualify for an Academic Competitiveness Grant - $750 (for college freshmen) and $1,300 (for college sophomores).

NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

College-bound student-athletes who want to compete for Divisions I and II programs must be certified academically (and also as an amateur) by the NCAA Eligibility Center. Students must register with the eligibility center. Students must make sure he/she is on course to meet core-course requirements (verify he/she has the correct number of core courses and that the core courses are on the high school's 48-H with the eligibility center).

SERVICE LEARNING

As a graduation requirement, students must complete 75 hours of service learning. Students will start working on their course embedded hours in grade 5, five (5) hours. Students must complete a service-learning project in grades 6-8, ten (10) hours in each grade (30 hours) and ten (10) hours in HS Health, HS Financial Literacy, HS Government and HS Environmental Science (40 hours). Students not completing the middle school component in middle school must do so in high school in addition to the high school requirement. Each student is also required to complete the service learning requirement for high school in order to be eligible to graduate. Secondary students can complete additional independent service learning hours above and beyond the embedded 75 service learning hours or to earn any hours not completed in the designated courses.

Transfer Policy: Transfer policies differ in each Maryland public school system. If a student transfers to another county in Maryland, it will be indicated on the student's record how many hours have been completed in that system. If transferring into Caroline County Public Schools from out-of-state, non-public school, out of country, or home school, based on their official record, students will need to complete their service-learning requirement according to the following:

Time of Transfer & Hours Students Must Earn

6th Grade – 70 hours	10th Grade – 30 hours
7th Grade – 60 hours	11th Grade – 20 hours
8th Grade – 50 hours	12th Grade/1st Semester – 10 hours
9th Grade – 40 hours	12th Grade/2nd Semester – 5 hours

SPECIAL SCHEDULING CONSIDERATIONS

Every effort is made to develop a master schedule that best meets student course requests. However, some course conflicts are inevitable. The schools cannot guarantee students will be able to take every course they would like in a given year, even if that course is in the student's four-year plan.

STUDENTS WITH DISABILITIES

Instruction and Assessment for All Students
All students, including those with disabilities, are taught using grade-level Maryland College and Career-Ready Standards (MCCRS), Maryland State Curriculum (SC), and the National Center and State Collaborative (NCSC) Core Content Connectors (CCC) to earn a Maryland High School Diploma.

Students are evaluated on grade-level content through the Maryland Comprehensive Assessment Program (MCAP) in English 10 and Algebra. Government content is assessed via the High School Assessment (HSA), and science content through the Life Science Maryland Integrated Science Assessment (LS MISA).

Students with disabilities have access to the general education curriculum and are expected to meet the same enrollment, attendance, credit, course, and service-learning requirements as their peers. They also take part in State assessments (MCAP, MISA, and HSA), with accommodations provided as needed.

Alternate Academic Framework
The Alternate Academic Framework is a curriculum, instruction, and assessment system created for a small number of students with the most significant cognitive disabilities who cannot demonstrate learning on standard assessments, even with accommodations. This decision is made annually by the student's Individualized Education Program (IEP) team. These students take part in the Maryland Alternate Assessments, which align with curriculum, instruction, and assessment tools designed specifically for their needs. Continuing participation in instruction using alternate achievement standards and/or the alternate assessment will not prepare a student with a significant cognitive disability to meet Maryland's high school diploma requirements.

Beginning in the 2025–2026 school year, students participating in the Alternate Framework will have the opportunity to earn one or more Maryland Certificate of Program Completion (MCOPC) Endorsements in the following areas: Postsecondary Education, Career and Work Readiness, and Community and Citizenship. These endorsements highlight student strengths, build confidence, and give schools, employers, and programs a clearer understanding of their abilities and goals. Earned endorsements will be recorded on the student's high school transcript at the time of their exit and earning of the Maryland Certificate of Program Completion.

COURSES OF STUDY

ENGLISH

ENGLISH 9
Course 102 5 periods/week/semester 1 credit (English credit)

In this course, students will develop their literacy skills, including reading and critical analysis of grade level literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language. **This course or English Essentials 9 is required for all ninth grade students.**

ENGLISH ESSENTIALS 9
Course 1020 5 periods/week/semester 1 credit (English credit)

In this course, students will study the Maryland College and Career Readiness standards while acquiring foundational reading and writing skills essential to English. Instruction will target grade level standards and provide direct instruction and support for reading, writing, and vocabulary skills to impact a student's ability to engage in reading and writing tasks. This course meets the English 9 graduation requirement and is recommended for students needing additional literacy support.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

ENGLISH 10
Course 105 5 periods/week/semester 1 credit (English credit)

In this course, students will continue to develop their literacy skills, including reading and critical analysis of grade level literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language. Completion of this course will prepare students for the Maryland State Assessment. **This course or English Essentials 10 is required for all tenth grade students.**

ENGLISH ESSENTIALS 10
Course 1021 5 periods/week/semester 1 credit (English credit)

In this course, students will study the Maryland College and Career Readiness standards while acquiring foundational reading and writing skills essential to English. Instruction will target grade level standards and provide direct instruction and support for reading, writing, and vocabulary skills to impact a student's ability to engage in reading and writing tasks. This course meets the English 10 graduation requirement and is recommended for students needing additional literacy support. Completion of this course will prepare students for the Maryland State Assessment.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

ENGLISH 11
Course 108 5 periods/week/semester 1 credit (English credit)

In this course, students will expand their literacy skills, including reading and critical analysis of grade level American literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language.

ENGLISH ESSENTIALS 11
Course 1022 5 periods/week/semester 1 credit (English credit)

In this course, students further develop their literacy skills through reading grade level American literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language. Instruction will also include direct support for reading, writing, and vocabulary skills to impact a student's ability to engage in appropriately complex reading and writing tasks. This course meets the English 11 graduation requirement and is recommended for students needing additional literacy support.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

AP ENGLISH LANGUAGE & COMPOSITION
Course 107 5 periods/week/semester 1 credit (English credit)

This course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects on non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. Students are also required to read and analyze several extended texts.
Prerequisites and Other Notes: English 9 (102), English 10 (105). This course is specifically for those students taking the AP Exam.

ENGLISH 12
Course 111 5 periods/week/semester 1 credit (English credit)

In this course, students will broaden their literacy skills, including reading and critical analysis of grade level World literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language.

ENGLISH ESSENTIALS 12
Course 1023 5 periods/week/semester 1 credit (English credit)

In this course, students will broaden their literacy skills through reading World literature and nonfiction texts as well as writing, reference and research, grammar, and vocabulary development. Instruction meets the Maryland College and Career Ready Standards in English for Speaking and Listening, Reading, Writing, and Language. Instruction will also include direct support for reading, writing, and vocabulary skills to impact a student's ability to engage in appropriately complex reading and writing tasks. This course meets the English 12 graduation requirement and is recommended for students needing additional literacy support.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

AP ENGLISH LITERATURE & COMPOSITION
Course 110 5 periods/week/semester 1 credit (English credit)

This course aligns to an introductory college-level analysis course. The course engages students in the close reading and critical analysis of imaginative literature (including poetry and extended texts) to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literature.
Prerequisites and Other Notes: English 9 (102), English 10 (105), and English 11 (108) or AP English Language & Composition (107). This course is specifically for those students taking the AP Exam.

ELA TRANSITION COURSE
Course 99301 5 periods/week/semester 1 credit (Elective credit)

Students who have not met graduation assessment requirements, or who are not CCR, will be provided with additional learning opportunities. The additional learning opportunities will focus on Maryland College and Career Ready Standards in English that have yet to be mastered. These students will be reassessed at the end of English 11 or English 12.

Dual Enrollment (register with college):

ENGLISH 101 - COMPOSITION
Dual Enrollment (register with college):
Course 960 2 periods/week/semester 1 credit – (3 college credits/English credit/elective credit)

Instruction in the writing process and fundamentals of academic writing. Students will learn to write clearly organized, well supported, thesis-driven essays. Analysis of written works and other texts, research methods and information literacy, and ethical use of resource materials are studied. A formal research paper is a required component of the class. **Prerequisites and Other Notes:** Students must maintain a 3.0 in English 10. Prerequisites for students not maintaining a 3.0 are ENG 094 or ENG 100. Completion of English 101 (960) satisfies the graduation requirement for English 11 (108) in the junior year OR English 12 if taken in the senior year (111).

ENGLISH 102 - INTRODUCTION TO LITERATURE
Dual Enrollment (register with college):
Course 961 2 periods/week/semester 1 credit – (3 college credits/English credit/elective credit)

An introduction to fiction, drama, and poetry, with emphasis on the writing of critical essays. A research paper is required. **Prerequisites and Other Notes:** Completion of English 101 (960). English 102 (961) satisfies the graduation requirement for English 12 (111)**.**

SPEECH AND PRESENTATION TECHNOLOGIES
Course 123 5 periods/week/semester 1 credit (Elective credit)

This elective course is an introductory course in basic speaking techniques. Speech activities include oral interpretation, debating, demonstrating a process and extemporaneous speaking. Students will learn basic computer presentation skills using multimedia technology.
Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. This course may be taken only once.

CREATIVE WRITING
Course 125 5 periods/week/semester 1 credit (Elective credit)

Creative Writing is an elective course for students who wish to explore such literary forms as the short story, the poem, the essay, or the one-act play. Literary works will serve as models through analysis, application, and imitation. Composition exercises will reflect an understanding of studied forms and application of creative techniques.
Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. This course may be taken only once.

STRATEGIC READING: PART ONE
Course 1390 5 periods/week/semester 1 credit (Elective credit)

This course provides personalized learning and explicit instruction in reading and language skills. Interventions utilize computer-based software and teacher-led instruction.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

STRATEGIC READING: PART TWO
Course 139 5 periods/week/semester 1 credit (Elective credit)

This course provides personalized learning and explicit instruction in reading and language skills. Interventions utilize computer-based software and teacher-led instruction.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

CONTENT AREA READING STRATEGIES
Course 132 5 periods/week/semester 1 credit (Elective credit)

This elective course is a reading intervention for identified students who are still in need of reading support. Using a variety of materials, students receive instruction in reading strategies for use in all content area classes.
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

FINE ARTS COURSES

VISUAL ARTS

FOUNDATIONS OF ART
Course 920 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course meets the fine arts requirements for graduation and is a prerequisite for all other art courses. Students will develop their skills in creating, responding, presenting and connecting. Areas of focus will include two-dimensional mediums, and three-dimensional mediums.
Prerequisites and Other Notes: This course satisfies the state Fine Arts requirement.

DRAWING I
Course 921 5 periods/week/semester 1 credit (Elective credit)

This course is designed to give students an opportunity to improve their drawing skills and techniques. Areas of focus may include a variety of wet and dry media from a variety of sources as they gain insight into both realistic and abstract work. Students will develop their skills in creating, responding, presenting and connecting. Students will experience new avenues through the use of experimental approaches and themes.
Prerequisites and Other Notes: Successful completion of Foundations of Art (920).

DRAWING II
Course 922 5 periods/week/semester 1 credit (Elective credit)

This course is designed to extend and improve personal growth through drawing skills developed in Drawing (921). Students will research, develop, and/or modify individual personal series and themes in the area of drawing. Students will examine both contemporary and traditional master's art work. Areas of focus may include a variety of wet, dry and experimental media from a variety of sources as they gain an insight into both realistic and abstract work. Students will develop their skills in creating, responding, presenting and connecting. As a culminating activity students will build a personal portfolio that is reflective of their acquired skills.
Prerequisites and Other Notes: Successful completion of Drawing I (921).

COLOR THEORY I
Course 923 5 periods/week/semester 1 credit (Elective credit)

This course is designed to focus on color theory and its applications. Areas of focus may include a variety of wet, dry and experimental media from a variety of sources as they gain an insight into both realistic and abstract work. Types of media may include pastels, colored tempera, acrylic, watercolor, printmaking, dyes, and mixed media. Students will examine how color has been used to enhance works of historical and cultural importance.
Prerequisites and Other Notes: Successful completion of Foundations of Art (920).

COLOR THEORY II
Course 924 5 periods/week/semester 1 credit (Elective credit)

This course is designed to extend and improve personal growth through color skills developed in course 923. Students will research, develop, and/or modify individual personal skills to achieve specific goals. Areas of focus may include a variety of wet, dry and experimental media derived from a variety of sources as they gain an insight into both realistic and abstract work. Types of media may include pastels, colored pencils, tempera, acrylic, watercolor, printmaking, dyes, oils, and mixed media. As a culminating activity, students will build a personal portfolio that is reflective of their acquired skills.
Prerequisites and Other Notes: Successful completion of Color Theory I (923).

3-D I
Course 925 5 periods/week/semester 1 credit (Elective credit)

This course is designed to provide a variety of opportunities for students to work with a variety of sculptural mediums in the round. Students will work toward problem solving in any medium presented using basic design principles. Complete investigation will be used at every stage of development. Types of media may include clay, plaster, found objects, fibers, wood and experimental materials.
Prerequisites and Other Notes: Successful completion of Foundations of Art (920).

3-D II
Course 926 5 periods/week/semester 1 credit (Elective credit)

This course is designed to extend and improve problem solving, investigation and skills with sculptural mediums in the round as developed in 3-D I (925). Higher order thinking will be necessary to create sculptural works. Types of media may include but are not limited to clay, plaster, wood, fibers, and found objects. As a culminating activity, students will build a personal portfolio that is reflective of their acquired skills.
Prerequisites and Other Notes: Successful completion of 3-D I (925).

ART STUDIO I
Course 927 5 periods/week/semester 1 credit (Elective credit)

This course is designed for students who wish to demonstrate mastery of any two-dimensional or three-dimensional medium or process. Such media may include graphic design, digital imaging, photography, collage, painting, printmaking, mixed media, ceramics, and sculpture. Students will develop technical skills and familiarize themselves with the functions of visual elements as they create an individual portfolio of work to be used in the evaluation of the AP Studio Art course. Portfolios can also be used for college admission and scholarship opportunities.
Prerequisites and Other Notes: Two credits in art courses beyond Foundations of Art (920).

ART STUDIO II
Course 9927 5 periods/week/semester 1 credit (Elective credit)

This course is designed for students who wish to demonstrate mastery of any two-dimensional or three-dimensional medium or process. Such media may include graphic design, digital imaging, photography, collage, painting, printmaking, mixed media, ceramics, and sculpture. Students will develop technical skills and familiarize themselves with the functions of visual elements as they create an individual portfolio of work to be used in the evaluation of the AP Studio Art course. Portfolios can also be used for college admission and scholarship opportunities.
Prerequisites and Other Notes: Seniors only. Successful completion of Art Studio I (927)

AP STUDIO ART: DRAWING

Course 937 5 periods/week/semester 1 credit (Elective credit)

This is an advanced, highly individualized course for the student who plans to pursue art in college or post-secondary studies. The course requires the development of an in-depth portfolio demonstrating quality, depth of concentration and breadth of application. This course focuses on mark-making and drawing concepts such as line quality, light and shade, rendering of form, composition, surface manipulation, and the illusion of depth.

Prerequisites and Other Notes: Satisfactory completion of Foundations of Art, as well as 2 other upper level art courses. It is recommended that students take Art Studio I and/or II in conjunction with this course. This course is specifically for those students who will take the AP Exam.

AP STUDIO ART: 2-D DESIGN

Course 938 5 periods/week/semester 1 credit (Elective credit)

This is an advanced, highly individualized course for the student who plans to pursue art in college or post-secondary studies. The course requires the development of an in-depth portfolio demonstrating quality, depth of concentration and breadth of application. This course focuses on principles of design and concepts in composition for two-dimensional works.

Prerequisites and Other Notes: Satisfactory completion of Foundations of Art, as well as 2 other upper level art courses. It is recommended that students take Art Studio I and/or II in conjunction with this course. This course is specifically for those students who will take the AP Exam.

AP STUDIO ART: 3-D DESIGN

Course 939 5 periods/week/semester 1 credit (Elective credit)

This is an advanced, highly individualized course for the student who plans to pursue art in college or post-secondary studies. The course requires the development of an in-depth portfolio demonstrating quality, depth of concentration and breadth of application. The course requires the development of an in-depth portfolio demonstrating quality, depth of concentration, and breadth of application. This course focuses on the elements and principles of art in relation to three dimensional works.

Prerequisites and Other Notes: Satisfactory completion of Foundations of Art, as well as 2 other upper level art courses. It is recommended that students take Art Studio I and/or II in conjunction with this course. This course is specifically for those students who will take the AP Exam.

Dual Enrollment (register with college):

ART 101

Course 9514 2 periods/week/semester 1 credit – (3 college credits/Fine Arts credit/ elective credit)

MEDIA ARTS

MEDIA ARTS I

Course 981 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is an introductory course to graphic design, digital arts, and interactive media arts. Students will engage in digital painting and photo manipulation, and will creatively express their feelings, perspectives, and ideas through overall design. This course requires students to use computers and technology tools daily in the design process.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement. It will not fulfill prerequisite requirements for any advanced art courses.

MUSIC

MARCHING BAND

Course 930 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course includes the performance of a variety of marching band literature and instruction in various marching and maneuvering skills. Participation in a variety of performances is strongly encouraged.
Prerequisites and Other Notes: Prior instrumental instruction recommended. This course satisfies the Fine Arts requirement.

CONCERT BAND

Course 935 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course includes the performances of concert band and literature in various eras of music. Participation in a variety of performances is strongly encouraged.
Prerequisites and Other Notes: Prior instrumental instruction recommended. This course satisfies the Fine Arts requirement.

JAZZ BAND

Course 931 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course includes the performances of jazz band literature from various subgenres.
Prerequisites and Other Notes: Prior instrumental instruction recommended. Participation in performances is strongly encouraged. This course satisfies the Fine Arts requirement.

INSTRUMENTAL FOUNDATIONS

Course 932 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is formerly known as Instrumental Sectionals. This introductory band course provides instruction in all band instruments and is designed for students who are at a beginner or novice level on their instrument. It concentrates on developing those instrumental skills needed for solo, sectionals, and small group performance.
Prerequisites and Other Notes: Prior instrumental instruction recommended.

VISUAL ENSEMBLE
Course 934 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is designed to facilitate the visual interpretation of music within the Marching Band through a variety of artistic methods, including but not limited to: flags, rifles, sabres, costuming, and dance. Participation in Marching Band performances is strongly encouraged.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement.

CHORUS
Course 940 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is designed for the study and performance of popular and classical music literature. Included in this course are counting, note reading, sight-reading, pitch recognition and performance techniques. Participation in performances is strongly encouraged.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement.

FOUNDATIONS OF MUSIC
Course 941 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is a general music course designed for students to study American music, properties of sound, fundamentals of music, ethnomusicology, careers in music, electronic music, and music in the media.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement.

ADVANCED VOCAL PERFORMANCE
Course 942 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

The Advanced Vocal Performance course is designed for students with previous choral singing experience. Students will extend and expand their singing knowledge and performance skills in addition to learning how to assess the quality and effectiveness of musical performances.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement. Participation in performances is strongly encouraged. Instructor approval is required.

AP MUSIC THEORY
Course 943 5 periods/week/semester 1 credit (Elective credit)

This course is designed for students who desire to study music in postsecondary studies. Students will extend and expand their music theory knowledge, sight-singing skills, and aural musical skills. This course is specifically for those students who will take the AP exam.
Prerequisites and Other Notes: This course is specifically for those students who will take the AP exam.

STRING ORCHESTRA
Course 9322 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

This course is designed to focus on the orchestral string ensemble and the instruments of the string family – the violin, viola, cello and bass. Other instruments may be included from time to time at the discretion of the conductor. A variety of music will be performed utilizing many different styles of instrumental literature from Baroque period music to present day Pops literature. Skill requirements for this class include counting, note reading, sight-reading, pitch recognition and performance technique specific to the instrument. Participation in a variety of performances is strongly encouraged.
Prerequisites and Other Notes: Prior instrumental instruction recommended, preferably in the middle school string orchestra program. This course meets the fine arts credit for graduation. **(CRHS campus only)**

Dual Enrollment (register with college):

MUSIC 101
Course CC19 2 periods/week/semester 1 credit – (3 college credits/Fine Arts credit/elective credit)

THEATER

THEATER ARTS I
Course 1240 5 periods/week/semester 1 credit (Fine Arts/Elective credit)

Students receive an introduction to the theater through a study of the following topics: history of theater; voice and movement; improvisation, pantomime, and/or mime; character analysis; and basics of the aspects of the visual theater (scenery, lighting, sound, costumes, and make-up). Students critically analyze aspects of play productions.
Prerequisites and Other Notes: This course satisfies the Fine Arts requirement.

THEATER ARTS II
Course 1241 5 periods/week/semester 1 credit (Elective credit)

Students learn about the technical aspects of theater as well as an introduction to production skills. Students will write their own production, including stage directions, dialogue, scenery, etc. A continuation of the analysis of classic and contemporary plays is integrated into the course.
Prerequisites and Other Notes: Successful completion of Theater Arts I (1240) is required unless approved by the instructor.

MATHEMATICS

ALGEBRA I ESSENTIALS A for MLL

Course 118 5 periods/week/semester 1 credit (Math credit)

Algebra I Essentials A for MLL is designed to prepare students who are Level 1 (Entering) and Level 2 (Beginning) English language learners for Algebra 1. Embedded with literacy supports, this course supports and facilitates the language development of emergent bilinguals through developmentally appropriate, standards-based math content. This course is designed to provide students with additional support while taking Algebra I. The curriculum includes work in the following topics: Patterns and Sequences, Linear Equations and Inequalities, Describing Data, Describing Functions, Systems of Linear Equations and Inequalities, Exponential Functions, Quadratic Functions, and Quadratic Equations. Support will be provided in the areas of Rates and Ratios, Proportional and Linear Relationships and Linear and Nonlinear Functions. **This course is a mathematics credit, however students enrolled in Algebra I Essentials A must also take Algebra I Essentials B to fulfill the Algebra I course requirement.**
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

ALGEBRA I ESSENTIALS A

Course 316 5 periods/week/semester 1 credit (Math credit)

This course is designed to provide students with additional support while taking Algebra I. The curriculum includes work in the following topics: Patterns and Sequences, Linear Equations and Inequalities, Describing Data, Describing Functions, Systems of Linear Equations and Inequalities, Exponential Functions, Quadratic Functions, and Quadratic Equations. Support will be provided in the areas of Rates and Ratios, Proportional and Linear Relationships and Linear and Nonlinear Functions. **This course is a mathematics credit, however students enrolled in Algebra I Essentials A must also take Algebra I Essentials B to fulfill the Algebra I course requirement .**
Prerequisites and Other Notes: Students must be recommended for this course by the principal or his/her designee.

ALGEBRA I ESSENTIALS B

Course 317 5 periods/week/semester 1 credit (Math credit)

This course is a continuation of Algebra I Essentials A 118/316. Students taking the second half of this sequence will be eligible for the state Algebra I assessment and successful completion of Algebra I Essentials B fulfills the Algebra I course requirement.
Prerequisites and Other Notes: Algebra I Essentials A (118/316)

ALGEBRA I

Course 303 5 periods/week/semester 1 credit (Math credit)

In middle school math, students began their study of algebraic concepts. They have investigated variables and expressions, solved equations, constructed and analyzed tables, used equations and graphs to describe relationships between quantities, and studied linear equations and systems of linear equations. Algebra I begins with connections back to that earlier work, efficiently reviewing algebraic concepts that students have already studied while at the same time moving students forward into the Maryland College and Career Readiness Standards for High School Mathematics. Students contrast exponential and linear functions as they explore exponential models using the familiar tools of tables, graphs, and symbols. Likewise, they apply these same tools to a study of quadratic functions. Throughout, the connection between functions and equations is made explicit to give students more ways to model and make sense of problems.
Prerequisites and Other Notes: Successful completion of Algebra I (303) is a graduation requirement. Completion of this course will prepare students for the state Algebra I Assessment.

ADVANCED ALGEBRA I

Course 318 5 periods/week/semester 1 credit (Math credit)

This course is designed to reinforce the skills and concepts necessary for students to be successful in Common Core Geometry and Common Core Algebra II. In this course, students will expand on their work in Algebra I to interpret and write expressions. This work will include arithmetic operations on polynomials and rational expressions. Students will solve, construct, interpret, analyze, and model with linear, quadratic and exponential functions using different representations.

Prerequisites and Other Notes: Students must complete Algebra I (303) before taking this course. This course is recommended for students who earn less than a C in Algebra I (303) or are not yet CCR based on the state Algebra I assessment.

GEOMETRY

Course 305 5 periods/week/semester 1 credit (Math credit)

Aligned to the Maryland College and Career Readiness Standards for Mathematics, Geometry begins with developing the tools of geometry, including transformations, proof, and constructions. These tools are used throughout the course as students formalize geometric concepts of congruence, similarity, circles, right triangles, and trigonometry. There is a focus on modeling, problem solving, and proof throughout the course.

Prerequisites and Other Notes: Students must successfully complete Algebra I (303) before taking this course. Successful completion of Geometry (305) is a graduation requirement.

ALGEBRA II

Course 308 5 periods/week/semester 1 credit (Math credit)

Building on their work in Algebra I with linear, quadratic, and exponential functions, students extend their study of functions to include polynomial, rational, and radical functions in Algebra II. Students continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms.

Prerequisites and Other Notes: Students must successfully complete Algebra I (303) and Geometry (305) before taking this course. The University of Maryland System requires Algebra II (308) for admission.

STATISTICS

Course 311 5 periods/week/semester 1 credit (Math credit)

This course is provided for those students who may pursue a science, mathematics, social science, or business course of study. Topics include graphing, averages, dispersion statistics, probability, normal distributions, estimates and sample sizes, hypotheses testing, and sample and parameter comparisons. Computerized statistical analysis is used extensively.

Prerequisites and Other Notes: Students must successfully complete Algebra II (308) before taking this course.

AP STATISTICS

Course 324 5 periods/week/semester 1 credit (Math credit)

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and

simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.
Prerequisites and Other Notes: Successful completion of Algebra II (308) and Statistics (311). This course is specifically for those students taking the AP Exam.

AP PRE-CALCULUS

Course 323 5 periods/week/semester 1 credit (Math credit)

AP Precalculus is designed to be the equivalent of a first semester college precalculus course. AP Precalculus provides students with an understanding of the concepts of college algebra, trigonometry, and additional topics that prepare students for further college-level mathematics courses. This course explores a variety of function types and their applications—polynomial, rational, exponential, logarithmic, trigonometric, polar, parametric, vector-valued, implicitly defined, and linear transformation functions using matrices.
Prerequisites and Other Notes: Successful completion of Algebra II (308). This course is specifically for those students who will take the AP Exam.

AP CALCULUS AB Part 1

Course 315 5 periods/week/semester 1 credit (Math credit)

The AP Calculus courses are intended for students who plan to study mathematics and/or sciences in college and enter STEM fields. AP Calculus AB and AP Calculus BC focus on students' understanding of calculus concepts and provide experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), each course becomes a cohesive whole, rather than a collection of unrelated topics. Both courses require students to use definitions and theorems to build arguments and justify conclusions. The courses feature a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. Teachers and students should regularly use technology to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results.
Prerequisites and Other Notes: Must have successfully completed AP Pre-Calculus (323).

AP CALCULUS AB Part 2
Course 307 5 periods/week/semester 1 credit (Math credit)

AP Calculus AB and AP Calculus BC focus on students' understanding of calculus concepts and provide experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), each course becomes a cohesive whole, rather than a collection of unrelated topics. Both courses require students to use definitions and theorems to build arguments and justify conclusions. The courses feature a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. Teachers and students should regularly use technology to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results.
Prerequisites and Other Notes: Must have successfully completed AP Calculus AB Part 1 (315). This course is specifically for those students who will take the AP Exam.

AP CALCULUS BC
Course 321 5 periods/week/semester 1 credit (Math credit)

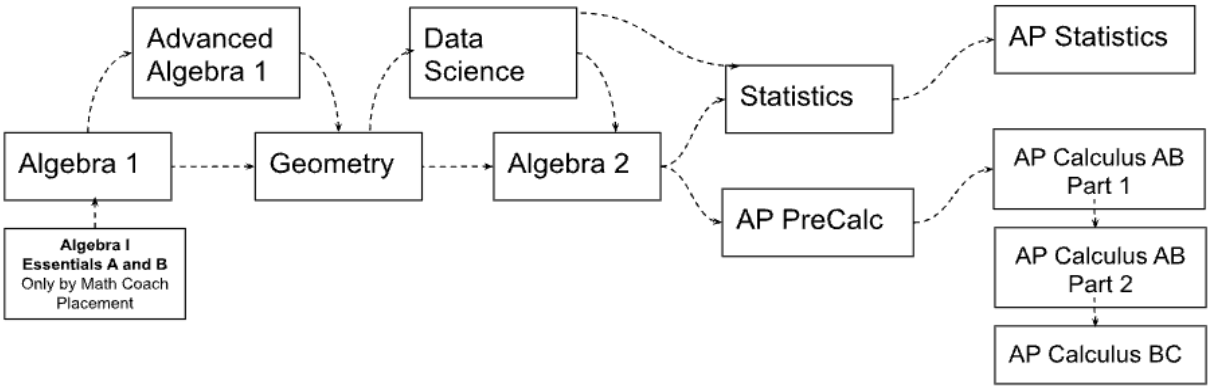
AP Calculus AB and AP Calculus BC focus on students' understanding of calculus concepts and provide experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), each course becomes a cohesive whole, rather than a collection of unrelated topics. Both courses require students to use definitions and theorems to build arguments and justify conclusions. The courses feature a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. Teachers and students should regularly use technology to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results
Prerequisites and Other Notes: Must have successfully completed AP Calculus AB Parts 1 and 2 (315, 307). This course is specifically for those students who will take the AP Exam.

PILOT Data Science Course 5 periods/week/semester 1 credit (Math credit)
Course

This course will introduce students to data science's main ideas and tools by exploring, organizing, displaying, and analyzing data using spreadsheets, databases, and AccessCharts. Students will learn to be data scientists in project-based units. Through these projects, students will develop their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, probability, modeling with data, making and evaluating data-based arguments, the power of data in society, and more. At the end of the course, students will have a portfolio of data science work that will showcase their newly developed abilities. Throughout the course, students will view real-world applications of data analysis through videos that connect what they are learning in the course with careers in Maryland-based businesses.

Prerequisites and Other Notes: Must have successfully completed Geometry (305). Students should be in their junior or senior year.

CCPS Math Course Offerings Sequence



9th grade course selections	10th grade course selections	11th and 12th grade course selections
Algebra I Essentials A and B (Math Coach Places) Algebra I Geometry	Advanced Algebra (Math Coach Places) Geometry Algebra II AP Precalculus	Geometry Data Science Algebra II Statistics AP Statistics AP Precalculus AP Calculus AB Part 1 AP Calculus AB Part 2 AP Calculus BC

Each student must earn 4 math credits and must enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years.

Dual Enrollment (register with college):

STATISTICS

Course 9512 2 periods/week/semester 1 credit – (3 college credits/Math credit)
MAT204

Prerequisites and Other Notes: Students must successfully complete Algebra II (308) before taking this course.

PRECALCULUS

Course CC65 2 periods/week/semester 1 credit – (5 college credits/Math credit)
MAT115

Prerequisites and Other Notes: Successful completion of Algebra II (308).

CALCULUS

Course CC106 2 periods/week/semester 1 credit – (3 college credits/Math credit)
MAT120

Prerequisites and Other Notes: Must have successfully completed AP Pre-Calculus (323).

COLLEGE ALGEBRA

Course CC53 2 periods/week/semester 1 credit – (3 college credits/Math credit)
MAT113

Prerequisites and Other Notes: Must have successfully completed AP Pre-Calculus (323).

PHYSICAL EDUCATION / HEALTH

PHYSICAL EDUCATION I: Fitness for Life
Course 600 5 periods/week/semester 1 credit (PE credit)

This course emphasizes foundational skills and techniques that lead to improved physical fitness and personal conditioning as well as teaching high school basic sports, team and individual games, and activities. The course contains age-appropriate health lessons, which inform students of health-related concerns, and the community agencies that offer related services.
Prerequisites and Other Notes: This is the only course that satisfies the state physical education graduation requirement and is recommended for students entering 9th grade.

LIFETIME SPORTS AND FITNESS
Courses 603 5 periods/week/semester 1 credit (Elective credit)

This course emphasizes personal fitness components, advanced skills and game strategies, including; lifetime activities such as tennis, golf, badminton, and table tennis. Students gain experience in personal and social responsibility through physical education and fitness knowledge.
Prerequisites and Other Notes: Successful completion of Physical Education I (600).

STRENGTH & CONDITIONING I: Foundations of Strength & Endurance Training
Course 609 5 periods/week/semester 1 credit (Elective credit)

Elective physical education course designed to introduce students to the benefits of strength training and cardio-vascular conditioning. Students will improve their overall fitness levels. Students will research and develop an individualized training program to enhance muscular strength as well as participate in aerobic and cross-training activities to improve cardiovascular endurance. Research based topics also include diet, nutrition, and performance-based supplements.
Prerequisites and Other Notes: Successful completion of Physical Education I (600) is required for enrollment.

STRENGTH & CONDITIONING II
Course 610 5 periods/week/semester 1 credit (Elective credit)

Elective physical education course designed to extend and improve personal fitness plans developed in course 609. Students will research, develop and/or modify individualized training programs in the areas of muscular strength and cardio-vascular endurance. Aerobic and cross-training activities as well as Internet research on topics of diet, nutrition and performance-based supplements is included.
Prerequisites and Other Notes: Successful completion of Strength & Conditioning I (609) is required for enrollment.

STRENGTH & CONDITIONING III: Advanced Course
Course 611 5 periods/week/semester 1 credit (Elective credit)

Elective physical education course designed to extend and improve students' overall fitness. Aerobic, cross-training and muscular strengthening activities are emphasized. Student research into different types of fitness programs as well as Internet research on topics of diet, nutrition and performance-based supplements is included. Students will produce a comprehensive fitness program for others as a culminating activity.
Prerequisites and Other Notes: Successful completion of Strength & Conditioning II (610) is required for enrollment.

HEALTH

Course 620 5 periods/week/semester 1 credit (Health credit)

Required course of study for all secondary students. Units of study include physical fitness; alcohol, tobacco and other drugs; personal safety, first aid and injury prevention; disease prevention and control; nutrition; mental health; consumer health; family life and human sexuality, including units on AIDS prevention, sexually-transmitted infections and contraception.

Prerequisites and Other Notes: This is the only course that satisfies the state Health Education graduation requirement and is for students beginning in 10th grade.

UNIFIED PHYSICAL EDUCATION AND LEADERSHIP

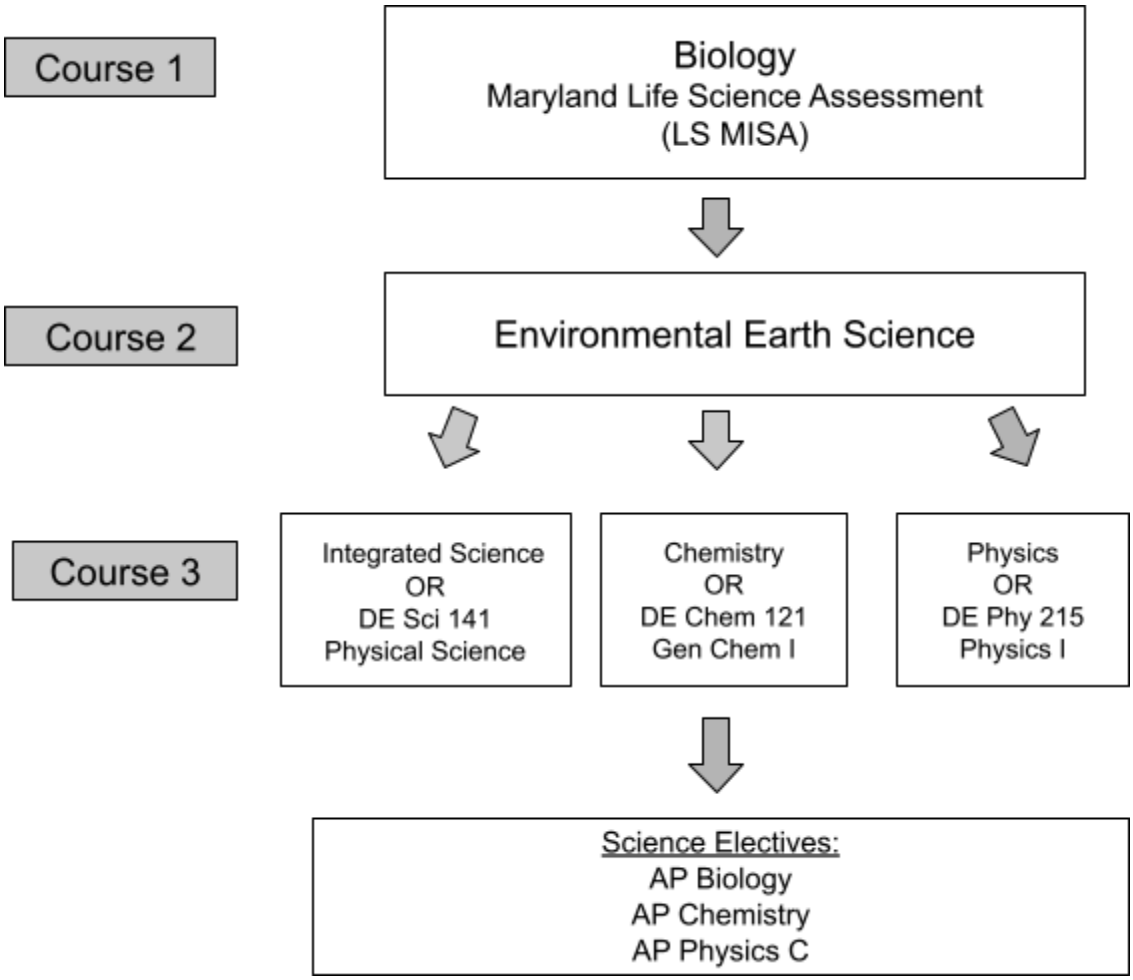
Course 615 5 periods/week/semester 1 credit (Elective credit)

This course will allow for students with and without disabilities to gain knowledge, experience, and skills in recreation sports, leisure activities, team/individual sports, fitness, and dance in a collaborative and cooperative environment. All students will explore leadership characteristics, communication and listening skills, group work, and critical thinking skills in order to provide support in an inclusive environment.

Prerequisites and Other Notes: Successful completion of Physical Education I (600) and Lifetime Sports and Fitness (603). Elective course for 11 or 12th grade and have a teacher recommendation.

SCIENCE

Science Course Sequence



BIOLOGY

Course 403 5 periods/week/semester 1 credit (Biology credit)

This NGSS aligned course emphasizes the patterns, processes, and relationships of living organisms. Students will use observations, experiments, hypotheses, tests, models, theory, and technology to explore how life works. Core ideas include structures and processes in organisms, ecology, heredity, and evolution. There will be multiple opportunities for students to apply these ideas in developing solutions to authentic problem-based scenarios. The Life Science Maryland Integrated Science Assessment is administered as a final exam in this course. This course is the first course in the high school science sequence and must be taken in 9th grade.

AP BIOLOGY S1
Course 413 5 periods/week/semester 1 credit (Elective credit)

AP Biology uses a college level textbook to develop an in-depth, conceptual understanding of life science rather than an accumulation of isolated facts. Students will experience the process of scientific inquiry, recognize the unifying themes that integrate the major topics of biology, and apply their biological knowledge and critical thinking skills to environmental and social concerns. The number of topics included in an AP Biology course, as well as the time students need to spend on coursework, further distinguish this class from the typical first year biology class.
Prerequisites and Other Notes: Satisfactory completion of Algebra II (308), Biology (403), and Chemistry (405). Students must complete AP Biology (414) to be prepared to take the AP Biology exam.

AP BIOLOGY
Course 414 5 periods/week/semester 1 credit (Science credit)

This is a continuation of course 413. Students taking this second half of the sequence will be eligible for the AP Biology exam.
Prerequisites and Other Notes: AP Biology S1 (413).

CHEMISTRY
Course 405 5 periods/week/semester 1 credit (Science credit)

This course is intended for the college-bound student or a student with a strong interest in principles of Chemistry. The focus is on the mathematical/theoretical understanding of the structure and composition of matter, changes in matter, and their causes. Topics include chemical shorthand and nomenclature; atomic structures and bonding; periodic groups and trends; states of matter; solutions and chemical equilibrium; acid-base chemistry; qualitative analysis; thermodynamics and gas laws.
Prerequisites and Other Notes: Satisfactory completion of Common Core Algebra I (303) or Advanced Algebra I (318). May be used as the third course in the high school sequence for science. Satisfactory completion of Chemistry qualifies students to take AP Chemistry (417) or AP Biology (414).

AP CHEMISTRY S1
Course 417 5 periods/week/semester 1 credit (Elective credit)

AP Chemistry emphasizes the in-depth development and understanding of fundamentals and a reasonable competence in dealing with chemical problems. Students will work individually, as well as collaboratively, to express ideas orally and in writing in a clear and logical manner. AP Chemistry uses a college level textbook, involves students in laboratory experiences typical of college courses, covers topics not typically taught during a first-year chemistry class, emphasizes calculations, and the mathematical formulation of principles. The number of topics included in an AP Chemistry course, as well as the time students need to spend on coursework, further distinguish this class from the typical first year chemistry class.
Prerequisites and Other Notes: Satisfactory completion of Algebra II (308) and Chemistry (405). Students must complete AP Chemistry (418) to be prepared to take the AP Chemistry exam.

AP CHEMISTRY
Course 418 5 periods/week/semester 1 credit (Science credit)

This is a continuation of AP Chemistry S1 (417). Students taking the second half of the AP Chemistry sequence will be eligible for the AP Chemistry exam.
Prerequisites and Other Notes: AP Chemistry S1 (417).

PHYSICS

Course 407 5 periods/week/semester 1 credit (Science credit)

Physics is recommended for the college bound student or students with a strong interest in science, engineering, and/or mathematics. It includes kinetics, mechanical interactions, energy, momentum, and conservation principles. The application of algebraic concepts in physics will be emphasized during this course.

Prerequisites and Other Notes: Satisfactory completion Algebra I (303), and Geometry (305). Algebra II (308) is recommended as a co-requisite or prerequisite for this course. May be used as the third course in the high school sequence for science.

AP PHYSICS C (MECHANICS) S1

Course 470 5 periods/week/semester 1 credit (Elective credit)

AP Physics C (Mechanics) emphasizes an in-depth understanding of the fundamentals of mechanics. Areas of study will include: kinematics, Newton's Laws of Motion, work, power, energy, circular motion, rotation, oscillation, gravitation, system particles and momentum. AP Physics uses a college level textbook and involves student laboratory investigation expected at the college level. Additionally, this course will emphasize the application of calculus to solve problems.

Prerequisites and Other Notes: Satisfactory completion or concurrent enrollment in Calculus (315).

AP PHYSICS C (MECHANICS)

Course 471 5 periods/week/semester 1 credit (Science credit)

This is a continuation of course 470. Students taking the second half of AP Physics C (Mechanics) sequences will be eligible for the AP Physics C (Mechanics) exam.

Prerequisites and Other Notes: Satisfactory completion of AP Physics C S1 (470).

ENVIRONMENTAL EARTH SCIENCE

Course 415 5 periods/week/semester 1 credit (Science credit)

This NGSS aligned course focuses on how Earth's land (geosphere), air (atmosphere), water (hydrosphere), and living things (biosphere) interact. It also focuses on the ways humans have an effect on the environment. Various methods for reducing damage to the environment will be presented and evaluated. Learning for this course will occur through laboratory investigations, projects, research, and simulations. Students will complete an environmental action project by the end of this course as required by Maryland's Environmental Literacy Standards

Prerequisites and Other Notes: This is the second required course in the high school science sequence, taken after satisfactory completion of Biology (403).

INTEGRATED SCIENCE

Course 419 5 periods/week/semester 1 credit (Science credit)

This NGSS aligned course is designed to reinforce the skills and concepts necessary for students to be successful in all science standards required at the high school level. Topics of study from life, earth, and physical science are presented through real world problems, hands-on investigations, projects, and scientific readings. Topics will include trends and patterns of the periodic table, chemical reactions, Newton's Laws of Motion, energy conservation, and interactions between the living world and the land, air and water.

Prerequisites and Other Notes: Satisfactory completion of Biology (403) and Environmental Earth Science (415). May be used as the third course in the high school sequence for science.

Dual Enrollment (register with college):

CHEM 121: General Chem I (Chemistry)
Course CC49 1 credit (4 college credits/Science credit)

An introduction to the fundamental principles of chemistry including atomic structure, chemical reactions and stoichiometry. The laboratory consists of basic techniques and study of chemical reactions. Three hours lecture, three hours laboratory per week. This course can be used in place of Chemistry for the third science credit.
Prerequisites and Other Notes: You must either complete MAT 113, MAT 115, or MAT 140 prior to taking this class or take either one at the same time as this class. - Must be taken either prior to or at the same time as this course. You must complete ENG 094, with a grade of C or higher, (or have appropriate scores on the placement test) prior to taking this class. - Must be completed prior to taking this course.

SCI 141: Physical Science (Integrated Science)
Course CC90 1 credit (4 college credits/Science credit)

An introduction to physical science, emphasizing the concepts of chemistry and physics. Topics will be presented and discussed through an interrelated approach designed for the non-science major. Three hours lecture, two hours laboratory per week. This course can be used in place of Integrated Science for the third science credit.
Prerequisites and Other Notes: You must complete MAT 023, with a grade of C or higher, (or have appropriate scores on the placement test) prior to taking this class. - Must be completed prior to taking this course.
You must complete ENG 094, with a grade of C or higher, (or have appropriate scores on the placement test) prior to taking this class. - Must be completed prior to taking this course.

PHY 215: Physics I (Physics)
Course CC200 1 Credit (4 college credits/Science credit)

A calculus-based study of the laws of physics. The first of two semesters of college physics, preparing students for further study in the physical sciences for education and engineering. Topics include kinematics, statics and dynamics, momentum and energy, rotational dynamics, mechanical waves and sound, gravitational field, properties of materials, and introduction to fluid mechanics and thermodynamics. Three hours lecture, three hours laboratory per week. This course can be used in place of Physics for the third science credit.
Prerequisites and Other Notes: You must complete ENG 094, with a grade of C or higher, (or have appropriate scores on the placement test) prior to taking this class. - Must be completed prior to taking this course. Complete MAT-140 as a prerequisite. - Must be completed prior to taking this course.

SOCIAL STUDIES

UNITED STATES HISTORY

Course 205 5 periods/week/semester 1 credit (Social Studies credit)

This course provides an understanding of the principles that helped shape modern America. The inter-relatedness of political, economic, and socio-cultural influences in the chronological study of history from Reconstruction to the present is emphasized. Students apply knowledge of the past within the context of the present and the future. Constructive assessments, book reports, critiques, and selected topical research are requirements for this course.
Prerequisites and Other Notes: This course is required prior to taking AP United States History (Colonization to Present, Course 221)

AP UNITED STATES HISTORY – (Colonization to Present) 11th and 12 Grade

Course 221 5 periods/week/semester 1 credit (Elective credit)

An in-depth study of selected topics in United States history is the theme of this course. Note-taking from printed materials, lectures, and discussions are used in the development of essays. From this foundation, critical reading and writing, analysis of historical interpretation, and research development are used to assist students in preparation for college level study. A research paper is the culminating activity. Students taking this sequence will be eligible for the AP US History Exam.
Prerequisites and Other Notes: United States History (205) is a prerequisite for this course. This course is specifically for those students who will take the AP Exam. This course is recommended for students in 11th and 12th grades only.

AMERICAN GOVERNMENT

Course 201 5 periods/week/semester 1 credit (Social Studies credit)

This course is designed to develop an awareness of the governmental, political, and economic factors that influence the American way of life on national, state, and local levels. Included is the study of basic American political documents, the functioning of the three branches of government, and the influence of mass media and special interest groups. The individual's role as worker, consumer, and citizen in a democratic, capitalistic society is emphasized.

AP UNITED STATES GOVERNMENT AND POLITICS

Course 222 5 periods/week/semester 1 credit (Social Studies credit)

This course is designed to give students an analytical perspective on government and politics in the United States. It includes the study of general concepts used to interpret U.S. politics and the analysis of specific examples. This course requires familiarity with the various institutions. Constructive assessments, analysis of current events from newspapers and magazines, oral reports, and group projects are required for this course.
Prerequisites and Other Notes: This course may be taken in place of American Government (201).

WORLD HISTORY
Course 203 5 periods/week/semester 1 credit (Social Studies credit)

This course is designed to develop an understanding of early Modern World History through present day. It includes the transition from ancient civilizations to early modern societies, the growth of Eurasia and Africa in between 1300-1550, revolutionary Europe, 18th and 19th Century nationalism, industrialism, and imperialism, the World Wars, and the modern, post-1950 era. Emphasis is given to not only content, but also social studies skills and processes.

AP WORLD HISTORY
Course 224 5 period/week/semester 1 credit (Social Studies credit)

This course will develop greater understanding of the evolution of global processes and contacts in different types of human societies. Through a combination of factual knowledge and appropriate analytical skills, the nature of change in global frameworks, causes and consequences as well as comparisons among major societies are analyzed. The course emphasizes relevant factual knowledge, leading interpretive issues, historiography, and skills in analyzing various types of historical evidence.
Prerequisites and Other Notes: This course may be taken in place of World History (203).

CONTEMPORARY ISSUES
Course 207 5 periods/week/semester 1 credit (Elective credit)

An examination of current issues and events as they relate to federal, state and local government is the focus of this course. International affairs and national social concerns are emphasized. Investigation is aimed at providing an awareness and concern for the complex problems facing all individuals so students may function intelligently and effectively in the modern world.
Prerequisites and Other Notes: An elective course available for grades 10-12.

PHYSICAL AND CULTURAL GEOGRAPHY
Course 209 5 periods/week/semester 1 credit (Elective credit)

This course furnishes an understanding of the diverse cultures throughout the world as they relate to physical and political geography. Included are activities on map-reading, political and economic relationships between nations, and both cultural similarities and differences within and among nations.
Prerequisites and Other Notes: An elective course available for grades 10-12.

PSYCHOLOGY
Course 216 5 periods/week/semester 1 credit (Elective credit)

The focus of this course is the individual and his/her interactions with others. Particular emphasis is placed on self understanding. Students will become acquainted with a variety of theoretical perspectives and explanations for various behaviors and outcomes. Topics covered include personality, motivation, learning and mental illness.
Prerequisites and Other Notes: An elective course available for grades 10-12. **(NCHS campus only)**

AP PSYCHOLOGY
Course 218 5 periods/week/semester 1 credit (Elective credit)

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also will learn about the ethics and methods psychologists use in their science and practice.
Prerequisites and Other Notes: An elective course available for grades 11 and 12.

SOCIOLOGY
Course 217 5 periods/week/semester 1 credit (Elective credit)

This course examines cultural and societal values, norms and mores including the structure of society, human needs, their roles and relationships. The study of agents of socialization such as the family unit, schools, religion, peers, the workplace, mass media, and technomedia familiarize students with the various dynamics of society. Students are exposed to both pure and applied sociological concepts in order to connect the classroom lessons with the world beyond the classroom for a better understanding of society as a whole.
Prerequisites and Other Notes: An elective course available for grades 10-12.

BUSINESS LAW
Course 214 5 periods/week/semester 1 credit (Elective credit)

This course provides students with a basic foundation and concepts of the legal system in the United States with primary focus on the role of law in the business environment. Emphasis is placed on the application of the principles of the laws to areas of business such as contracts, property, consumer relations, and business organization.
Prerequisites and Other Notes: An elective course recommended for grades 10-12.

Dual Enrollment (register with college):

WORLD CIVILIZATION II
Course 9513
2 periods/week/semester 1 credit – (3 college credits/World History credit/ elective credit)

FINANCIAL LITERACY

FINANCIAL LITERACY

Course 8111 5 periods/week/semester 1 credit (Elective credit)

This course will focus on the role of the student as a citizen, family member, consumer, and active participant in the business world. Students will explore many important areas of economic interest that will enhance their financial security. They will discover ways to maximize their earnings potential, develop strategies for managing their resources, explore skills for the wise use of credit, and gain knowledge of the different ways of investing and managing money. In addition, students will learn about risk management and laws that protect them as a consumer.

Prerequisites and Other Notes: This course is recommended for juniors and seniors only.

TECHNOLOGY EDUCATION

PLTW Computer Science Essentials (CSE)
Course 80860 5 periods/week/semester 1 credit (CTE credit)

CS Essentials introduces students to coding fundamentals through an approachable, block-based programming language where students will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text-based programming side by side. Finally, students will learn the power of text-based programming as they are introduced to the Python programming language. The course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today.
Note: Counts as a technology education credit. Must complete each end of course assessment.

PLTW: INTRODUCTION TO ENGINEERING DESIGN (IED)
Course 80872 5 periods/week/semester 1 credit (CTE credit)

This course emphasizes the development of a design. Students use 3-D computer software to produce, analyze, and evaluate models of project solutions. They study the design concepts of form and function, then use state-of-the-art technology to translate conceptual designs into reproducible products.
Prerequisites and Other Notes: Students should be currently enrolled in or have completed Algebra I (303). Recommended for students in grades 9 or 10.
Note: Counts as a technology education credit. Must complete each end of course assessment.

PLTW: PRINCIPLES OF ENGINEERING (POE)
Course 80871 5 periods/week/semester 1 credit (CTE credit)

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the engineering social and political consequences of technological change.
Note: Counts as a technology education credit. Must complete each end of course assessment.

CS DISCOVERIES
Course 89020 5 periods/week/semester 1 credit (Tech. credit)

This course is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun.
Note: Counts as a technology education credit. Must complete each end of course assessment.

ENGLISH LANGUAGE DEVELOPMENT (ELD)

ENGLISH AS A FOREIGN LANGUAGE (EFL)

Course 120 5 periods/week/semester 1 credit (World Language)

This course focuses on improving newcomer multilingual learners' skills in reading, writing, listening, and speaking through the use of WIDA ELD Standards. Instruction focuses on developing students' foundational literacy skills and introduces students to the academic expectations of U.S. high schools. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. This course satisfies one World Language credit requirement. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information.

ENGLISH AS A FOREIGN LANGUAGE (EFL)

Course 1202 5 periods/week/semester 1 credit (World Language)

This course focuses on improving newcomer multilingual learners' skills in reading, writing, listening, and speaking through the use of WIDA ELD Standards. Instruction focuses on developing students' foundational literacy skills and introduces students to the academic expectations of U.S. high schools. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. This course satisfies one World Language credit requirement. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information.

ENGLISH AS A FOREIGN LANGUAGE (EFL) - Elective

Course 1208 5 periods/week/semester 1 credit (Elective credit)

This course focuses on improving entering level multilingual learners' skills in reading, writing, listening, and speaking through the use of WIDA ELD Standards. Instruction picks up where EFL courses 120 and 1202 end, improving entering level multilingual learners' language and academic skills through the use of WIDA ELD Standards. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

ENGLISH AS A FOREIGN LANGUAGE (EFL) 2 - Elective

Course 1209 5 periods/week/semester 1 credit (Elective credit)

This course builds on improving emerging level multilingual learners' language and academic skills through the use of WIDA ELD Standards. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

ENGLISH AS A FOREIGN LANGUAGE (EFL) 3 - Elective

Course 1210 5 periods/week/semester 1 credit (Elective credit)

This course focuses on strengthening developing and expanding levels of multilingual learners' academic and language skills through the use of WIDA ELD Standards. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

ENGLISH AS A FOREIGN LANGUAGE (EFL) 4 - Elective

Course 1211 5 periods/week/semester 1 credit (Elective credit)

This course focuses on enhancing expanding and bridging levels of multilingual learners' academic and language skills through the use of WIDA ELD Standards, with an emphasis on strengthening advanced academic language within grade-level content. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.

Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

ENGLISH AS A FOREIGN LANGUAGE (EFL) 5 - Elective

Course 1212 5 periods/week/semester 1 credit (Elective credit)

This course continues to focus on enhancing expanding and bridging levels of multilingual learners' academic and language skills through the use of WIDA ELD Standards, with an emphasis on applying and extending academic language skills across grade-level content areas. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.
Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

ENGLISH AS A FOREIGN LANGUAGE (EFL) 6 - Elective

Course 1213 5 periods/week/semester 1 credit (Elective credit)

This course continues to focus on enhancing bridging and reaching levels of multilingual learners' academic and language skills through the use of WIDA ELD Standards. Through an asset-based approach, this course leverages students' linguistic and cultural strengths to develop academic language, literacy, and communication skills. Biliteracy supports are available to English Learners.
Prerequisites and Other Notes: This course may not be used to meet the state requirements of four (4) Carnegie units in English. Placement in this course will be contingent upon MLL placement and assessment scores. Placement in this course should be based on students' English language proficiency level, limited or interrupted education status, and the length of previous schooling. Decisions regarding placement should be made based on a review of the students records and WIDA ACCESS scores and/or screener information. It is also important to note that at the high school level, many MLLs (Multilingual Learner) are identified as long-term multilingual learners (LTELs), resulting in various ELP levels being placed in the EFL Elective classes.

LANGUAGE FOR LEARNING

Course 140 5 periods/week/semester 1 credit (Elective credit)

Language for Learning is a foundational program designed to provide novice learners with the knowledge and understanding of language needed to achieve proficiency and boost reading comprehension. This program teaches students the words, concepts, and statements important to both oral and written language, and helps enable them to extend this knowledge to other areas of development.

WORLD LANGUAGES

FRENCH I
Course 501 5 periods/week/semester 1 credit (World Language/Elective credit)

French I is designed to introduce students to language and culture and prepare them to communicate in French by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing) and presenting (speaking, writing) information on a variety of basic topics. This course introduces the relationships among the products, practices, and perspectives of French culture.

FRENCH II
Course 502 5 periods/week/semester 1 credit (World Language/Elective credit)

French II builds upon skills developed in French I, preparing students to communicate in French by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information on more complex topics. This course continues to introduce the relationships among the products, practices, and perspectives of French culture.
Prerequisites and Other Notes: French I (501).

FRENCH III
Course 503 5 periods/week/semester 1 credit (World Language/Elective credit)

French III prepares students to communicate more authentically in French by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including making connections to other subject areas. French III expands students' knowledge of relationships among the products, practices, and perspectives of French language countries and cultures.
Prerequisites and Other Notes: French I (501), French II (502).

FRENCH IV
Course 504 5 periods/week/semester 1 credit (World Language/Elective credit)

French IV prepares students to communicate authentically and expressively in French by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information, concepts and ideas on a variety of topics, including self-selected topics. French IV extends students' understanding of the relationships among products, practices, and perspectives of French language countries and cultures.
Prerequisites and Other Notes: French I (501), French II (502), & French III (503).

AP FRENCH LANGUAGE AND CULTURE
Course 506 5 periods/week/semester 1 credit (World Language/Elective credit)

The AP French Language and Culture course emphasizes communication by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course is taught almost exclusively in French. The course engages students in an exploration of culture in both contemporary and historical contexts and develops students' awareness and appreciation of cultural products, practices, and perspectives.
Prerequisites and Other Notes: French I (501), French II (502), French III (503). French IV is recommended but not required (504). This course is specifically for those students who will take the AP Exam.

SPANISH I

Course 508 5 periods/week/semester 1 credit (World Language/Elective credit)

Spanish I is designed to introduce students to language and culture and prepare them to communicate in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing) and presenting (speaking, writing) information on a variety of basic topics. This course introduces the relationships among the products, practices, and perspectives of Hispanic culture.

HERITAGE SPEAKERS I

Course 514 5 periods/week/semester 1 credit (World Language/Elective credit)

Heritage Speakers I is focused on improving skills in speaking, listening, reading, and writing, while also exploring Hispanic cultures and the experiences of heritage Spanish speakers in the United States. Students will learn to express their ideas on social and academic topics, interact with other Spanish speakers, and critically analyze media and websites. Students will also gain a deeper understanding of the language's variations, cultural customs, geography, history, and current events in Hispanic communities.

Prerequisites and Other Notes: This course is designed for heritage learners of Spanish who have an intermediate-low level of speaking proficiency on the ACTFL scale. It is not necessary for students to be at the intermediate level in reading or writing before starting the course.

SPANISH II

Course 509 5 periods/week/semester 1 credit (World Language/Elective credit)

Spanish II builds upon skills developed in Spanish I, preparing students to communicate in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information on more complex topics. This course continues to introduce the relationships among the products, practices, and perspectives of Hispanic culture.

Prerequisites and Other Notes: Spanish I (508).

HERITAGE SPEAKERS II

Course 515 5 periods/week/semester 1 credit (World Language/Elective credit)

This course focuses on the development of additional skills in reading, writing, speaking and listening and viewing, as well as on understanding Hispanic cultures and issues of identity of heritage speakers of Spanish in the United States. Students will also continue to develop awareness and understanding of Hispanic cultures, including language variation, customs, geography, history, and current events. During this course, students will gain proficiency in using Spanish in increasingly complex ways to express thoughts on social and academic themes, interact with other speakers of the language, understand oral and written messages, make oral and written presentations, reflect on language variation, and critically view and evaluate media resources and websites.

Prerequisites and Other Notes: Heritage Speakers I (514) or by administrator recommendation.

SPANISH III

Course 510 5 periods/week/semester 1 credit (World Language/Elective credit)

Spanish III prepares students to communicate more authentically in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including making connections to other subject areas. Spanish III expands students' knowledge of relationships among the products, practices, and perspectives of Spanish language countries and cultures.

Prerequisites and Other Notes: Spanish I (508) & Spanish II (509).

SPANISH IV

Course 511 5 periods/week/semester 1 credit (World Language/Elective credit)

Spanish IV prepares students to communicate authentically and expressively in Spanish by interpreting (reading, listening, viewing), exchanging (speaking and listening, reading and writing), and presenting (speaking, writing) information, concepts and ideas on a variety of topics, including self-selected topics. Spanish IV extends students' understanding of the relationships among products, practices, and perspectives of Spanish language countries and cultures.
Prerequisites and Other Notes: Spanish I (508), Spanish II (509), & Spanish III (510).

AP SPANISH LANGUAGE AND CULTURE

Course 513 5 periods/week/semester 1 credit (World Language/Elective credit)

The AP Spanish Language and Culture course emphasizes communication by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course is taught almost exclusively in Spanish. The course engages students in an exploration of culture in both contemporary and historical contexts and develops students' awareness and appreciation of cultural products, practices, and perspectives.
Prerequisites and Other Notes: Spanish I (508), Spanish II (509), Spanish III (510). Spanish IV is recommended but not required (511). This course is specifically for those students who will take the AP Exam.

CAREER AND TECHNICAL EDUCATION COURSES

All CTE Completers will be required to take an industry or program assessment in order to pass the course. All required industry assessments are given at no cost to the students.

WORK BASED LEARNING

APPRENTICESHIP MARYLAND PROGRAM

The Apprenticeship Maryland Program is coordinated through a partnership between the Maryland State Department of Education (MSDE) and the Maryland Department of Labor, Licensing and Regulation (DLLR). The program is for students, ages 16 and up, and is designed to lead to sustainable employment and further education based on career pathways in Science, Technology, Engineering, and Mathematics (STEM) occupations. The STEM – related occupations include: Information Technology; Health and Biomedical Sciences; Manufacturing; Construction and Design; and Baking and Finance. The program is based on partnership among employers and mentors, school districts, and students and parents. Eligible employers (approved by the Maryland Apprenticeship Training Council through DLLR) hire high school juniors and seniors to work in eligible career track occupations creating an "earn and learn" opportunity. The program consists of at least one credit of related classroom instruction and a workplace component of at least 450 hours. The workplace component is a paid (at least minimum wage), mentored, on-the-job, work experience with a written, student rating/work-based learning plan and a formal agreement among the student, school, and employer.

APPRENTICESHIP RELATED INSTRUCTION

Course 80815 5 periods/week/semester 1 credit (CTE credit)

Students are required to complete one credit of related classroom instruction. The classroom instruction can be offered prior to or simultaneously with the work-based learning experience. The school system Youth Apprenticeship Coordinator and designees are responsible for ensuring that this is reflected on the student's schedule and that credit is earned towards high school graduation. In addition, the related classroom instruction must assist the student in meeting the goals outlined in the student training plan. The Youth Apprenticeship Coordinator and/or designees must collaborate with the classroom instructors and the Eligible Employer to coordinate the design of a realistic training plan that meets the needs of the Eligible Employer and the capacity of the classroom instructor and school district.

Prerequisites and Other Notes: Recommended for grades 11-12

APPRENTICESHIP WORK-BASED LEARNING (WBL) EXPERIENCE 1

Course 80816 5 periods/week/semester 1 credit (CTE credit)

The first part of a work-based learning experience which takes place on a work-site and must be a paid experience (at least minimum wage). All three parts of WBL experience must cumulate to a minimum of 450 hours. This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. The student work plan identifies the appropriate competencies, duties, tasks and outcomes in academic, technical, and workplace readiness areas that apply directly to the student's goals for a specific work-related placement.

Prerequisites and Other Notes: Recommended for grades 11-12

APPRENTICESHIP WORK-BASED LEARNING (WBL) EXPERIENCE 2

Course 80817 5 periods/week/semester 1 credit (CTE credit)

The second part of a work-based learning experience which takes place at a work-site and must be a paid experience (at least minimum wage). All three parts of WBL experience must cumulate to a minimum of 450 hours. This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. The student work plan identifies the appropriate competencies, duties, tasks and outcomes in academic, technical and workplace readiness areas that apply directly to the student's goals for a specific work-related placement.

Prerequisites and Other Notes: Recommended for grades 11-12

APPRENTICESHIP WORK-BASED LEARNING (WBL) EXPERIENCE 3

Course 80818 5 periods/week/semester 1 credit (CTE credit)

The third part of a work-based learning experience which takes place at a work-site and must be a paid experience (at least minimum wage). All three parts of WBL experience must cumulate to a minimum of 450 hours. This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. The student work plan identifies the appropriate competencies, duties, tasks and outcomes in academic, technical, and workplace readiness areas that apply directly to the student's goals for a specific work-related placement. The student's final portfolio will document proficiency in academic, technical, and workplace readiness skills as indicated in the student WBL plan. A copy of the employer's assessment as well as documentation from the WBL coordinator shall be included.

Prerequisites and Other Notes: Recommended for grades 11-12

CONSTRUCTION & DEVELOPMENT

CONSTRUCTION TECHNOLOGY / COMPUTER AIDED DRAFTING & DESIGN

FOUNDATIONS OF BUILDING & CONSTRUCTION

Course 80840 5 periods/week/semester 1 credit (CTE credit)

The Foundations of Building and Construction course is the Core Curriculum of the Construction and Development Cluster. The NCCER Core Curriculum is taught within this course and is the basis for all construction skills. NCCER requires that all trainees successfully complete the Core Curriculum before advancing to Level One of their chosen field. The course of study descriptions correlates to the modules of the NCCER national standards and related work-based learning opportunities. **The following modules are designed to be completed in approximately 72.5 hours of instruction and allows for an estimated 27.5 hours of related "hands-on" applications/work-based learning opportunities to reinforce and extend the learning**.
Prerequisites and Other Notes: Recommended for grades 10-11.

COMPUTER AIDED DRAFTING AND DESIGN – CADD I

Course 871 5 periods/week/semester 1 credit (CTE credit)

This course introduces the student with the tools and techniques used to create technical drawings in the engineering, manufacturing, and construction industries. During this course required drawings will be completed using both hand drafting tools and computer aided drafting and design software. The student will complete basic and intermediate level orthographic and isometric drawing assignments. Emphasis will be placed on the practical application of geometric concepts during the drawing process. The student will learn about career opportunities in the area of drafting and design. The student will develop effective workplace readiness and customer relation skills as they relate to computer aided drafting and design careers. A portfolio of completed assignments will be developed.
Prerequisites and Other Notes: Recommended for grades 10-11.

RESIDENTIAL AND LIGHT COMMERCIAL CONSTRUCTION TECHNOLOGY I

Course 873 5 periods/week/semester 1 credit (CTE credit)

This course introduces the basic processes of residential and light commercial building construction, from digging and pouring the masonry foundation to installing roofing. Topics will include interpreting plans and blueprints, layout and site preparation, wall, window, stairwell, and roof framing, installing windows and layout and application of roofing materials. The students will have the opportunity to apply their skills and knowledge during the construction of a residential or light commercial structure. The continued development of safe work habits and effective workplace readiness skills will be emphasized throughout the course.
Prerequisites and Other Notes: Recommended for grades 10-11.

FUNDAMENTALS OF CONSTRUCTION AND DRAFTING

Course 870 5 periods/week/semester 1 credit (CTE credit)

This course provides an introduction and overview of the areas of construction and drafting technologies. The student will develop basic skills in both manual and computer aided drafting and design. The student will gain hands-on experience in the use of the hand and power tools used in the construction industry. Projects, which incorporate basic construction techniques, will be completed. The student will become aware of career opportunities in the areas of construction and development. Practical applications of mathematics and other academic skills will be integrated into all course activities. The development of safe work habits and effective workplace readiness will be an important element of this course.

Prerequisites and Other Notes: Foundations of Building & Construction (80840), Computer Aided Drafting and Design - CADD I (871), Residential and Light Commercial Construction Technology I (873). Recommended for grades 11-12.

COMPUTER AIDED DRAFTING AND DESIGN – CADD II

Course 872 5 periods/week/semester 1 credit (CTE credit)

This course introduces students to the intermediate concepts and applications of residential and light commercial planning techniques as they are used in the building and construction industries. The student will study topics such as designing and drawing elevations, sectionals, details and site plans. The students will develop a basic understanding of building materials, construction practices and architectural drawing standards. Complete working drawings of a home or small commercial building will be prepared. The student will continue to develop effective workplace readiness and customer relation skills as they relate to computer aided drafting and design careers. The portfolio of completed assignments will be refined.

Prerequisites and Other Notes: Foundations of Building & Construction (80840), Computer Aided Drafting and Design - CADD I, Residential and Light Commercial Construction Technology I (873). Recommended for grades 11-12. Recommended elective for Construction.

RESIDENTIAL AND LIGHT COMMERCIAL CONSTRUCTION TECHNOLOGY II

Course 874 5 periods/week/semester 1 credit (CTE credit)

Building on the knowledge and skills learned in Residential Construction Technology I, the student will learn methods and processes used in residential and light commercial structure exterior and interior finish work. Topics include installation of exterior wall sheathing, siding and trim and interior finishing processes, door installation, floor coverings, tiling, trim work and cabinetry. The students will learn to prepare for job interviews and become aware of opportunities for further education in construction technology. The continued development of safe work habits and effective workplace readiness skills will be emphasized throughout the course.

Prerequisites and Other Notes: Foundations of Building & Construction (80840), Computer Aided Drafting and Design-CADD I (871), Residential and Light Commercial Construction Technology I (873). Recommended for grades 11-12.

CONSUMER SERVICES, HOSPITALITY & TOURISM

CAREERS IN COSMETOLOGY PATHWAY

PRINCIPLES AND PRACTICES OF COSMETOLOGY

Course 835 15 periods/week/semester 3 credits (CTE credit)

This course provides an introduction to the field of cosmetology. Students develop and practice basic skills in cosmetology, develop a broad understanding of the variety of career options available to a licensed cosmetologist, and learn how science and math are fundamental aspects in the practice of cosmetology. Students will learn histology of the hair and scalp, properties of hair, skin, and nails, perform basic manicure and pedicure, shampooing, rinsing, and conditioning hair, haircutting tools, techniques, and principles of hair design, apply foundation knowledge of anatomy, physiology, and chemistry.

Prerequisites and Other Notes: Students earn 405 hours toward the 1,500 hours required for licensure. Recommended for grade 10.

ADVANCED COSMETOLOGY: THEORY AND APPLICATION

Course 836 15 periods/week/semester 3 credits (CTE credit)

This course allows students to develop and practice more advanced techniques in the field of cosmetology. Students will learn various facial treatments, massage and manipulation techniques, make-up application, hair press and thermal styling, coloring and lightening techniques, hair braiding technique, human body systems as they relate to cosmetology, hair removal techniques, skin care treatments, artificial nail techniques.

Prerequisites and Other Notes: Principles and Practice of Cosmetology (835). Students earn 405 hours toward the 1500 hours required for licensure. Recommended for grade 11.

MASTERY OF COSMETOLOGY

Course 837 15 periods/week/semester 3 credits (CTE credit)

This course provides students the opportunity to further refine and apply skills that support all aspects of the cosmetology industry. It will assist in preparing students to obtain employment and advance in the field of cosmetology upon passing the State Board of Cosmetologists licensing examination. Students will learn the fundamentals of small business management and complete a senior capstone project/portfolio. Upon completion of this course students may be eligible to apply for the 1,000-hour letter to participate in a work-based learning experience. Upon successful completion of the first 1,000 hours of the program and the instructor's recommendation, students will be eligible to participate in up to 300 hours of a supervised work-based learning experience in an off-site salon setting. These experiences are organized around a training plan that is cooperatively developed by the school and the employer to add value to and extend a student's career preparation.

Prerequisites and Other Notes: Advanced Cosmetology: Theory and Application (836). Students earn 405 hours toward the 1,500 hours required for licensure. Recommended for grade 11. Students must take and pass State Boards at the end of this class in lieu of taking a Cosmetology Practicum Course (838/ 839). The State Board Exam must be taken and passed prior to beginning the final practicum course.

COSMETOLOGY PRACTICUM

Course 838 15 periods/week/semester 3 credits (CTE credit)

This is the culminating course to prepare students for the Maryland State Board of Cosmetologist Licensing Exam administered by Experior Assessments. Students will refine skills necessary to pass the Maryland State Board of Cosmetologists exam.

Prerequisites and Other Notes: Mastery of Cosmetology. Recommended for grade 12. Students earn 405 hours toward the 1,500 hours required for licensure. License will not be issued until age 17. Students who complete 1500 hours and pass the State Board Cosmetology exam, are **exempted** from this course. Students who pass the State Boards during this course will have an option to convert to Career Internship. Students must take Industry Assessment to receive credit for the course. Completer course only for this major.

COSMETOLOGY PRACTICUM

Course 839 10 periods/week/semester 2 credits (CTE credit)

This two-period course is designed to provide students the opportunity to further refine and apply skills that support all aspects of the cosmetology industry. It will assist in preparing students to obtain employment and advance in the field of cosmetology upon passing the State Board of Cosmetologists licensing examination. Prior to selecting this course students must have completed a minimum of 1,000 hours in the classroom and commits to obtaining 300 hours in a salon supervised by a senior cosmetologist.

Prerequisites and Other Notes: Mastery of Cosmetology (837). Recommended for grade 12. Students earn 405 hours toward the 1,500 hours required for licensure. License will not be issued until age 17. Students who complete 1500 hours and pass the State Board Cosmetology exam, are **exempted** from this course. Students who pass the State Boards during this course will have an option to convert to Career Internship.

FOOD & BEVERAGE MANAGEMENT

FOOD SERVICE PROFESSIONAL I

Course 901 10 periods/week/semester 2 credits (CTE credit)

This course provides an introduction to the food service and hospitality industry. Students develop and demonstrate skills in safe and sanitary food handling and preparation techniques. Students learn to prepare a variety of foods. They develop a broad understanding of the variety of career options available in the foodservice and hospitality industry, and have the opportunity to earn the ServSafe Credential. Students successfully completing this course will be able to:

- Describe the variety of careers within the food service and hospitality industry and the education required to be successful.
- Demonstrate proper handling of different types of foods.
- Demonstrate work-place safety.
- Demonstrate a variety of food preparation techniques.
- Demonstrate an understanding of nutrition, evaluate and apply the principles of the food pyramid and its importance for healthy living.
- Prepare and work with a variety of foods to include dairy, salads and garnishes, fruits and vegetables.
- Demonstrate effective teamwork, communication, problem-solving, and decision-making skills.
- Apply mathematical concepts relevant to the restaurant, food service and hospitality industry.

Prerequisites and Other Notes: Recommended for students in grades 10-11.

FOOD SERVICE PROFESSIONAL PRACTICUM

Course 903 10 periods/week/semester 1 credit (CTE credit)

This course provides students the opportunity to further refine and apply skills that support all aspects of the industry. It will assist in preparing students for employment and advancement in the field of hospitality and food and beverage management. Students successfully completing this course will be able to:

- Explore job market and employment opportunities.
- Apply the fundamentals of managing a food service establishment.
- Explain and demonstrate the skills necessary for transition from school to a professional setting.
- Apply the foundation knowledge of safe and sanitary food preparation and food handling techniques.
- Apply the foundation knowledge in order to prepare a wide variety of foods.

Prerequisites and Other Notes: Recommended for students in grades 10-11. Concurrently enrolled and/or completed Food Service Professional I (901) & Food Service Professional II (902). Food Service Practicum (903) is taken in conjunction with Food Service Professional I (901) and Food Service Practicum (904) is taken in conjunction with Food Service Professional II (902). Completer course only for this major.

FOOD SERVICE PROFESSIONAL II

Course 902 10 periods/week/semester 2 credits (CTE credit)

Students enrolled in this course will continue to prepare a variety of foods. They will create menus and demonstrate various types of restaurant service. They will apply purchasing techniques and demonstrate an understanding of inventory monitoring and control. Students will have the opportunity for an authentic, mentored work-based learning experience. Students successfully completing this course will be able to:

- Describe the history of food service and hospitality.
- Describe various types of lodging establishments and career opportunities associated with each type.
- Identify global cultures and traditions related to food preparation and service.
- Prepare a variety of foods including desserts, based goods, meat, poultry and seafood, stocks, soups and sauces.
- Define and develop a variety of menus and food service styles effective for the industry.
- Apply concepts of purchasing and inventory control.
- Apply mathematical concepts relevant to the restaurant and food service industry.
- Demonstrate effective teamwork, communication, problem-solving, and decision-making skills.

Prerequisites and Other Notes: Food Service Professional I (901), Food Service Professional Practicum I (903). Recommended for students in grades 11-12.

FOOD SERVICE PROFESSIONAL PRACTICUM II

Course 904 10 periods/week/semester 1 credit (CTE credit)

This course provides students the opportunity to further refine and apply skills that support all aspects of the industry. It will assist in preparing students for employment and advancement in the field of hospitality and food and beverage management. Students successfully completing this course will be able to:

- Explore job market and employment opportunities.
- Apply the fundamentals of managing a food service establishment.
- Explain and demonstrate the skills necessary for transition from school to a professional setting.
- Apply the foundation knowledge of safe and sanitary food preparation and food handling techniques.
- Apply the foundation knowledge in order to prepare a wide variety of foods.

Prerequisites and Other Notes: Food Service Professional I (901) & Food Service Professional Practicum I (903). Recommended for students in grades 11-12.

ENVIRONMENTAL, AGRICULTURE & NATURAL RESOURCES

CASE - CURRICULUM FOR AGRICULTURE SCIENCE EDUCATION

AGRICULTURE, FOOD AND NATURAL RESOURCES (AFNR)

Course 8160 5 periods/week/semester 1 credit (CTE credit)

The course is structured to enable all students to have a variety of experiences that will provide an overview of the fields of agricultural science and natural resources so that students may continue through the sequence of courses. Woven throughout the course are activities to develop and improve employability skills of students through practical applications. Students participating in the AFNR course will experience inquiry-based activities, projects, and problems. Students' experiences will involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in practical learning exercises. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. Students will explore career and post-secondary opportunities in each area of the course.

PRINCIPLES OF AGRICULTURE ANIMAL SCIENCE (ASA)

Course 8190 5 periods/week/semester 1 credit (CTE credit)

The Principles of Agricultural Science – Animal course serves as one of two principle courses within the CASE program sequence. The course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in animal science so that students may continue through the sequence of courses in the CASE program. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, or industry personnel face in their respective careers. The knowledge and skills students develop will be used in future courses within the CASE program. In addition, students will understand specific connections between the Animal Science lessons SAE, FFA, and LifeKnowledge (a curriculum for leadership and career development) components that are important for the development of an informed agricultural education student. Students will build on the skills developed in the AFNR to investigate, conduct experiments, and document projects that solve real life problems. Students will communicate their solutions through reports and presentations to their peers and members of the professional community.

PRINCIPLES OF AGRICULTURAL PLANT SCIENCE (ASP)

Course 8540 5 periods/week/semester 1 credit (CTE credit)

The course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in plant science. Students will work in teams, exploring hands-on projects and activities, to learn the characteristics of plant science and work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers and producers, and plant research specialists face in their respective careers. Students will develop skills to investigate, conduct experiments, and document projects that solve real life problems. Students will communicate their solutions through reports and presentations to their peers and members of the professional community.

ANIMAL AND PLANT BIOTECHNOLOGY

Course 8550 5 periods/week/semester 1 credit (CTE credit)

The Animal and Plant Biotechnology course is one of two specialized courses available to students through the CASE curriculum. Throughout the course students will explore the science of biotechnology and its agricultural and societal implications. Students will work in teams through inquiry-based projects exploring biotechnology research methodology, DNA/gene transfer, biofuels, micro propagation, embryo transfer, transgenic materials, and microbial biotechnology. As a foundation, biochemistry and the regulations, laws, and ethics governing biotechnology will be addressed. In addition, students will understand specific connections between the Animal and Plant Biotechnology lessons SAE, FFA, and LifeKnowledge components that are important for the development of an informed agricultural education student. Expanding on their knowledge and skills from previous courses, students will continue to investigate, conduct experiments, and document projects to solve problems that pose greater conceptual and technical challenges. Student's presentations will communicate their solutions to their peers and members of the professional community.

Prerequisites and Other Notes: CASE Plant (8540) or Animal Science (8190).

AGRIBUSINESS, RESEARCH, AND DEVELOPMENT (CAPSTONE)

Course 8555 5 periods/week/semester 1 credit (CTE credit)

Capstone: The Agriculture Business, Research, and Development course will serve as the capstone course available to students through the CASE™ curriculum. Instruction and continued inquiry-based projects are designed to integrate key learning from previous CASE™ courses and have students apply them to real-world career situations through SAE projects or other internship/ work-based learning opportunities.

AGRICULTURE TECHNOLOGY

Course 817 5 periods/week/semester 1 credit (CTE credit)

Students will learn the basic principles involved in all types of agriculture and horticultural mechanics and technology. Students will be involved in basic carpentry, farm construction, electrical systems, arc welding, masonry, safe equipment operations and computer technology.

Prerequisites and Other Notes: Recommended elective for CASE.

HEALTH & BIOSCIENCES

ACADEMY OF HEALTH PROFESSIONS

FOUNDATIONS OF MEDICINE AND HEALTH SCIENCE

Course 80801 15 periods/week/semester 1 credit (CTE credit)

This course is designed to provide students with an overview of the therapeutic, diagnostic, environmental and information systems of the healthcare industry. Students will begin to prepare for a medical or health science career by developing a broad understanding of the cluster and pathways in the Health and Biosciences Cluster. Students will learn about ethical and legal responsibilities, as well as the history and economics of healthcare. Students will engage in processes and procedures that are used in the delivery of essential healthcare services. As students learn to use medical terminology within a variety of medical and healthcare environments, they will develop the Skills for Success, academic, and technical skills necessary to function as a health professional. It is recommended that students complete or be concurrently enrolled in Biology to understand the concepts of Anatomy and Physiology and Pathophysiology introduced in this course.

MEDICAL SPECIALTY

Course 80802 5 periods/week/semester 1 credit (CTE credit)

Students are prepared for actual experience in the clinical setting with a focus on the specific knowledge, skills and abilities that relate to the specialized course. Clinical internships will align with requirements set forth by the governing boards. Students in a specialized course will take the appropriate credentialing and/or end-of-course exam at the completion of the course. At the completion of this course students will be able to accurately use medical terminology; effectively apply written, verbal and non-verbal communication skills; practice ethical and professional behavior and respect confidentiality; perform healthcare provider CPR and obtain certification from the American Heart Association, where appropriate; earn industry recognized credentials or certifications (as appropriate); incorporate various diagnostic and therapeutic technologies as they relate to patient care; demonstrate proficiency in clinical and medical settings; demonstrate knowledge of human growth and development in relation to patient care; and demonstrate proficiency in one or more specialty area(s).

ALLIED HEALTH INTERNSHIP

Course 80803 5 periods/week/semester 1 credit (CTE credit)

This course is designed to give students supervised practical experiences in a variety of health care settings such as hospitals, physician offices, and other health care facilities. This internship assists students to identify career areas of interest within health care and make informed decisions about career options, educational requirements and career preparation.
Prerequisites and Other Notes: Clinical rotations require proof of current immunizations and TB symptoms sign off.

STRUCTURE AND FUNCTIONS OF THE HUMAN BODY

Course 80804 5 periods/week/semester 1 credit (CTE credit)

Students in this course study the structure and functions of the human body, including cellular biology and histology. Systemic study involves homeostatic mechanisms of the integumentary, skeletal, muscular, circulatory, nervous systems, special senses and aging. Students will investigate the body's responses to the external environment, maintenance of homeostasis, electrical interactions, transport systems, and energy processes. Students will conduct laboratory investigations and fieldwork, use scientific methods during investigations to solve problems and make informed decisions. Students will learn the medical terminology related to body systems. It is recommended that students have completed biology and be concurrently enrolled in chemistry.

Prerequisites and Other Notes: Medical Specialty (80802), Foundations of Medicine & Health Science (80801) and Allied Health Internship (80803).

CLINICAL INTERNSHIP

Course 80805 10 periods/week/semester 2 credits (CTE credit)

AHP students will participate in a work-based learning opportunity. Clinical Internship is designed to give students supervised practical application of previously studied theory. It is required to earn the industry credential as a Certified Nursing Assistant and be eligible to take Geriatric Nursing Assistant exam. A clinical internship is approved by a third party, such as the Maryland Board of Nursing. Students participating in the clinical internship will work in a MBON approved professional health care setting; prepare a professional portfolio that aligns to the SkillsUSA portfolio requirements containing, but not limited to, an updated resume, school transcript, letters of reference, achievements and awards, community project participation and projects; complete a research project and present it to a panel of industry representatives.

Prerequisites and Other Notes: Must take Structure & Functions of the Human Body (80804) and Clinical Internship (8- 805) concurrently. Completer course for this major.

PROJECT LEAD THE WAY - BIOMEDICAL SCIENCES

The Biomedical Sciences Program is based on the National Standards for Science, Mathematics, and English Language Arts, and the Accountability Criteria for National Health Care Cluster Foundation Standards. The program consists of a sequence of four courses: Principles of the Biomedical Sciences, Human Body Systems, Medical Interventions, and Science Research. The goal of the program is to increase the number of students pursuing careers in the biomedical sciences, including healthcare. Students who complete the program are prepared for employment and further education at two- and four year college levels.

Note: Successful completion of the four-course sequence with a B average or better and receive a score of 7 or higher can apply and receive 4 transcripted Biology credits from Stevenson University.

PRINCIPLES OF THE BIOMEDICAL SCIENCES
Course 80880 5 periods/week/semester 1 credit (CTE credit)

Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life. Key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including: the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate. Students will have a clear understanding of all the courses in the Biomedical Sciences program and the scientific foundation necessary for student success in the subsequent courses.

HUMAN BODY SYSTEMS
Course 80881 5 periods/week/semester 1 credit (CTE credit)

Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases and often play the role of biomedical professionals to solve medical mysteries.
Prerequisites and Other Notes: Must have completed Principles of the Biomedical Sciences (80880).

MEDICAL INTERVENTIONS
Course 80883 5 periods/week/semester 1 credit (CTE credit)

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body as students explore how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventative measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.
Prerequisites and Other Notes: Must have completed Human Body Systems (80881).

BIOMEDICAL INNOVATION

Course 80882 5 periods/week/semester 1 credit (CTE credit)

In this capstone course, students apply their knowledge and skills to answer questions to solve problems related to 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. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course students are expected to present their work to an adult audience that may include representatives from the local business and health care community.

Prerequisites and Other Notes: Must have completed Medical Interventions (80883). Completer course for this major.

HUMAN RESOURCE SERVICES

TEACHER ACADEMY OF MARYLAND (TAM)

The Maryland Academy for Teacher Education is a Career and Technology Education (CTE) instructional program that aligns with the Interstate New Teacher Assessment and Support Consortium (INTASC) and the Maryland Essential Dimensions of Teaching (EdoTs). The program prepares students for further education and careers in the education profession. The program consists of four high school credits that focus on teaching as a profession, human growth and development, learning theory, and curriculum and instruction. These credits are designed to articulate to a Maryland post-secondary teacher education program. Upon completion of the program and passing the ParaPro test, high school graduates are ready for employment in the teaching profession. This program is based on the outcomes of the Maryland Associates of Arts in Teaching (A.A.T.) degree, which aligns with the National Council for the Accreditation for Teacher Education (NCATE) standards.

HUMAN GROWTH AND DEVELOPMENT
Course 80821 5 periods/week/semester 1 credit (CTE credit)

This course is the foundation course in the Teacher Academy of Maryland completer program and is required for all students. Students will focus on lifespan. Emphasis is placed on theories of physical, cognitive and psychosocial development, the effect of heredity and the environment, the role of caregivers and the family, health and safety concerns, and contemporary issues. Students explore special challenges to growth and development. Students will begin to develop the components of a working portfolio to be assembled upon completion of the internship.
Prerequisites and Other Notes: Recommended for Grades 10 - 11.

TEACHING AS A PROFESSION
Course 80826 5 periods/week/semester 1 credit (CTE credit)

This course focuses on the profession of teaching-its history, purposes, issues, ethics, laws and regulations, roles, and qualifications. Emphasis is placed on identifying the current, historical, philosophical and social perspectives of American education, including trends and issues. Students will explore major approaches to human learning. Students will participate in guided observations and field experiences in multiple settings to help them assess their personal interest in pursuing careers in this field and to identify effective learning environments. Students will continue to develop the components of a working portfolio to be assembled.
Prerequisites and Other Notes: Recommended to take Human Growth and Development (80821) prior or concurrently. Recommended for grades 10-12.

FOUNDATIONS OF CURRICULUM AND INSTRUCTION
Course 80827 5 periods/week/semester 1 credit (CTE credit)

This course explores curriculum delivery models in response to the developmental needs of all children. Emphasis is placed on the development of varied instructional materials and activities to promote learning, classroom management strategies, and a supportive classroom environment. Students will explore basic theories of motivation that increase learning. Students will participate in guided observations and field experiences to critique classroom lessons in preparation for developing and implementing their own. Students will continue to develop the components of a working portfolio.
Prerequisites and Other Notes: Teaching As A Profession (80826). Recommended for grades 10-12.

EDUCATION ACADEMY INTERNSHIP

Course 80828 5 periods/week/semester 1 credit (CTE credit)

The internship is the culminating course of the Education Academy Program. Students will have an opportunity to integrate content and pedagogical knowledge in an educational area of interest. They will have an opportunity to extend and apply their knowledge about teaching in a classroom setting under the supervision of a mentor teacher. The students will complete their working portfolio and present it for critique. At the conclusion of this program students will be required to take the ParaPro or SAT, Praxis I exam.

Prerequisites and Other Notes: Recommended for grades 11-12. Foundations of Curriculum and Instruction (80827).

NAVAL JUNIOR OFFICER TRAINING CORPS

Students entering this program should be aware that this course practices codes of behavior consistent with military discipline, dress, and apparel. Students choosing this pathway must complete two years of world language or two advanced technology courses. Transportation to this program will be provided by Caroline County Public Schools.

NAVAL SCIENCE I
Course 85001 5 periods/week/semester 1 credit (CTE credit)

The Naval Junior Officer Training Corps (NJROTC) program is designed to teach the student self-discipline, self confidence, and leadership while introducing the basics of Naval Science, Naval History and Tradition, and Citizenship. The curriculum includes leadership, naval organization and tradition, U.S. Government, maritime geography, Naval History, navigation, seamanship, and health. Successful completion of three years of NJROTC allows entry into the armed forces at a pay grade two levels above other enlistees. There is no obligation to join the armed forces for NJROTC participants.
Prerequisites and Other Notes: Course is offered as a regional program in Talbot County Public Schools at Easton High School.

NAVAL SCIENCE II
Course 85002 5 periods/week/semester 1 credit (CTE credit)

The Naval Science II builds on the leadership, management, and technical training received in Naval Science I by delving deeper into the academic and technical curriculum of the initial course. The curriculum includes leadership, citizenship, Naval History, ship construction, naval weapons, oceanography, navigation and small boat seamanship. Basic survival and orienteering training is also included. There is no obligation to join the armed forces for NJROTC participants.
Prerequisites and Other Notes: Naval Science I (85001). Course is offered as a regional program in Talbot County Public Schools at Easton High School.

NAVAL SCIENCE III
Course 85003 5 periods/week/semester 1 credit (CTE credit)

Leadership becomes the paramount topic in the Naval Science III course. Fundamentals of democracy and Naval history are also stressed, and technical subjects such as meteorology and weather, astronomy, seamanship, and survival training are introduced. Leadership and management are the key areas of concern and effort. Leadership will be studied through readings and lectures, and practiced in classroom exercises and actual unit operations. There is no obligation to join the armed forces for NJROTC participants.
Prerequisites and Other Notes: Naval Science II (85002). Course is offered as a regional program in Talbot County Public Schools at Easton High School.

NAVAL SCIENCE IV
Course 85004 5 periods/week/semester 1 credit (CTE credit/Elective credit)

The purpose of this course is to build on the basic qualities of a good follower and an effective leader provided in the Naval Science I, II and III curricula and takes an in-depth look at what leadership is, and how to maximize your abilities in the leadership area. In addition to extensive reading and critical thinking, leadership skills are practiced and improved upon through staff leadership positions within the NJROTC unit.
Prerequisites and Other Notes: Naval Science III (85003). This course is a recommended elective for NJROTC. Course is offered as a regional program in Talbot County Public Schools at Easton High School.

FIREFIGHTER AND EMERGENCY MEDICAL RESPONDER (MFRI)

The EMR Fire and Rescue program will be taught by certified instructors from the Maryland Fire and Rescue Institute of the University of Maryland. Both classroom and practical sessions will be conducted off school property at the Upper Eastern Shore Regional Training Center of the Maryland Fire and Rescue Institute. Students must enroll in Emergency Medical Care and Firefighter I first semester, and Engine Company Fireground Operations (ECFO) and Truck Company Fireground Operations/Rescue Technician Site Operations/Vehicle Technician Extrication (TCFO/RTSO/VME) second semester. Operating as members of the Fire and Rescue service requires good health and physical condition. Individuals with physical or medical conditions which limit their full and active participation may not be eligible for this program. This program is taught off campus in Queen Anne's County. **Note: Must be a member of a local fire department and at least 16 years old. A Medical Clearance by a certified physician will be required for all participants before school starts.** Failure to comply will result in a denial of entry to the program. Students must pass Firefighter 1 test with a minimum of a 70% passing. Failure to pass this test will result in the inability to obtain certification, which may result in removal from the Fire Fighter program. Once the program is completed in May, students may be assigned to a local firehouse under the supervision of the Fire Chief for the remainder of the school year. School counselors, students and parents are encouraged to discuss course requirements toward graduation.

EMERGENCY MEDICAL RESPONDER
Course 80831 5 periods/week/semester 1 credit (CTE credit)

First semester topics in this course include: the human body, infectious diseases, medical issues, vital signs, sample history, skills practice, lifting/moving patients, airways, CPR, patient assessments, various medical emergencies, trauma, pediatric emergencies, and ambulance operations. Students in this course must pass all ten modular exams with a minimum of 70%, meet the attendance requirements for the course and receive a satisfactory evaluation by the instructor. A written and practical examination for certification is administered by the Maryland Institute for Emergency Medical Services System as part of this course.

FIREFIGHTER I
Course 80832 5 periods/week/semester 1 credit (CTE credit)

This course provides students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a firefighting team. Upon successful completion of this course students should be able to: apply the principles of fire behavior; understand the fundamentals of building construction; demonstrate knowledge of water distribution systems; understand ventilation and air currents as it applies to fire behavior; understand and apply knowledge of water pressure and hose streams; explain fire prevention practices; and demonstrate knowledge of Fire Fighter Professionals Qualifications. Topics in this course include: fire service organization/communications, fire behavior, life safety/fire prevention, portable fire extinguishers, introduction to respiratory protection, self-contained breathing apparatus, hose and streams, rope and knots, forcible entry, ventilation ladders, search and rescue, property conservation, wildland firefighting, structural firefighting, and fire ground fire rescue operations. Students must earn a 70% or higher on the FFI Midterm to remain in the program. Students must also pass the final exam with a 60% or better for High School credit and/or with a 70% or higher to receive both the High School credit and MFRI credit.

HAZARDOUS MATERIALS OPERATIONS (HMO)/ENGINE COMPANY FIREGROUND OPERATIONS (ECFO)
Course 80836 5 periods/week/semester 1 credit (CTE credit)

The objective of this course is to provide the student with the knowledge and skills to perform hazardous materials first response. Upon successful completion of this course, the student will be able to analyze a hazardous materials incident, plan an initial response, implement the response, and evaluate the progress of the actions taken. Major topics covered in this course include firefighter safety, regulations and standards, chemistry, recognition and identifications, DOT guidebook, site management, container behavior, defensive control measures, personal protective equipment and decontamination. Methods of instruction include lecture, discussion, classroom exercise and/or visual material, practical exercise, quizzes, observations, midterm and final examination. The objective of the ECFO course is to provide the student with the fundamental principles of engine company operations and how they can be integrated during fireground operations. Upon successful completion of this course, the student will be able to describe the functions and responsibilities of the engine company and demonstrate the use of nozzles, hose, hydrants, foam, and testing equipment during practical evolutions. Major topics covered in this course are functions and responsibilities of the engine company, construction and operation of nozzles, positioning and utilizing the engine, utilizing hydrants, pivot gauge and foam, sizeup, emergency response considerations, initial fireground operation, and selecting and placing attack and supply lines. Methods of instruction include lecture, discussion, audio/visual material, practical skills exercise, final written examination, and required assignments. Students must also pass the final exam with a 60% or better for High School credit and/or with a 70% or higher to receive both the High School credit and MFRI credit.

TRUCK COMPANY FIREGROUND OPERATIONS (TCFO), RESCUE TECHNICIAN SITE OPERATIONS AND VEHICLE TECHNICIAN & MACHINERY EXTRICATION (RTVME)
Course 80835 5 periods/week/semester 1 credit (CTE credit)

The objective of the TCFO course is to provide the student with the fundamental principles of truck company operations and how they are integrated during fireground operations. Upon successful completion of this course, the student will be able to demonstrate forcible entry, search and rescue, ventilation, salvage, overhaul and ladders. Major topics covered in the course are the functions and responsibilities of the truck company, forced entry, ground ladder use, techniques and procedures for locating victims, techniques for removal of smoke and gasses, salvage operations, checking for fire extension, procedures for overhauling, building construction, utility control and electrical and lighting the fireground. Methods of instruction include lecture, discussion, audio/visual material, practical skills exercises, final examination and required assignments.

The objective of the RTVMR course is to prepare the student to approach each rescue incident with attention focused on the importance of proper operational planning and all related components for effective safe site operation, victim management, equipment maintenance and inspection with particular emphasis on vehicular and machinery rescue. Upon successful completion of this course, the student will be able to recognize and implement the five phases of operational planning, understand and utilize technical rope rescue when needed; and properly package and transport a victim from a vehicular or machinery rescue. Major topics covered in the program include the five phases of successful site operations including, resource management, personal protective equipment, upsize activities, hazard identifications, search and rescue, ground support, incident management and termination, victim management, and rope rescue operations; maintenance and inspection of rope; rigging, anchoring and mechanical advantage; patient packaging and transfer during rescue operations; slope operations and evacuation; vehicular stabilization and extrication; specialty tools, hand tools, power and hydraulic tools; vehicular design; autos, busses, trucks, elevators, escalators, farm equipment, and mining/ industrial equipment/machinery. Methods of instruction include lecture, discussion, classroom exercises, audio/visual materials, practical field exercises, and final examinations.

Students must also pass the final exam with a 60% or better for High School credit and/or with a 70% or higher to receive both the High School credit and MFRI credit.

FIREFIGHTER II

Course 80837 5 Periods/week/semester 1 credit (CTE credit)

The objective of this course is to provide the knowledge and skills needed to become a journeyman firefighter. This course extends student's knowledge and skills of the FireFighter I course. Upon successful completion of this course students will know and be able to: apply rescue techniques; apply fire inspection practices; demonstrate safe ladder usage and demonstrate knowledge of the National Fire Protection Association Standard 1001. Students will gain a deeper understanding and application of the principles of fire behavior, building construction, water distribution systems, fixed fire protection systems, ventilation, water pressure and hose streams, fire prevention and Fire Fighter Professional qualifications. Students must also pass the final exam with a 60% or better for High School credit and/or with a 70% or higher to receive both the High School credit and MFRI credit.

INFORMATION TECHNOLOGY

PROJECT LEAD THE WAY COMPUTER SCIENCE

The Project Lead the Way (PLTW) Computer Science program of study engages high school students in computational thinking and prepares a computationally aware and capable workforce. PLTW Computer Science empowers students to become creators, instead of merely consumers, of the technology all around them. The program's interdisciplinary courses engage students in compelling, real-world challenges. As students work together to design solutions, they learn computational thinking – not just how to code – and become better thinkers and communicators. This program is comprised of four courses: CS Essentials, CS Principles, CS A, and Cybersecurity. Students who take the Computer Science Principles and Computer Science A courses can also sit for the Advanced Placement Computer Science exams for one or both of the courses.

PLTW Computer Science Essentials (CSE)
Course 80860 5 periods/week/semester 1 credit (CTE credit)

CS Essentials introduces students to coding fundamentals through an approachable, block-based programming language where students will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text-based programming side by side. Finally, students will learn the power of text-based programming as they are introduced to the Python programming language. The course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today.
Note: Counts as a technology education credit

PLTW AP COMPUTER SCIENCE PRINCIPLES (CSP)
Course 80861 5 periods/week/semester 1 credit (CTE credit)

PLTW has partnered with the College Board to offer AP level courses as part of the PLTW program. The Computer Science Principles course covers all learning objectives in the College Board's Computer Science Principles Framework. CSP aims to develop computational thinking, generate excitement about career paths that use computing, and introduce professional tools that foster creativity and collaboration. Students use Python as a primary tool and incorporate multiple platforms and languages for computation. Students practice problem solving and structured learning experiences and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems aim for ground-level entry with no ceiling so that all students can successfully engage the problems. Students with greater motivation, ability, or background knowledge will be challenged to work further. The course contains the following four units: 1) Algorithms, Graphics, and Graphical User interfaces; 2) The Internet; 3) Raining Reigning Data; and 4) Intelligent Behavior.

PLTW AP COMPUTER SCIENCE A (CSA)

Course 80862 5 periods/week/semester 1 credit (CTE credit)

PLTW has partnered with the College Board to offer AP level courses as part of the PLTW program. The Computer Science A (CSA) course covers all student learning outcomes and topics addressed in the College Board's AP Computer Science A Course description. The course introduces students to computer science with fundamental topics that include: problem solving, design strategies, and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems.

PLTW CYBERSECURITY (SEC)

Course 80863 5 periods/week/semester 1 credit (CTE credit)

PLTW SEC introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in SEC, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber infrastructure that moves and processes information safely.

MANUFACTURING, ENGINEERING & TECHNOLOGY
ADVANCED MANUFACTURING PROFESSIONALS (AMP)

FOUNDATIONS OF ADVANCED MANUFACTURING PRODUCTION I
Course 80806 5 periods/week/semester 1 credit (CTE credit)

This course is designed to introduce students to the foundational concepts and practices of the manufacturing industry including common processes used within the industry. The instruction will prepare students for the safety module assessment as part of the CPT certification. Starting with: Safety, Measurement, Materials, Job Planning, Drafting and Print Reading, Introduction to CADD, Introduction to Industry Electrical Applications, and Workshop Assembly Production. Recommended for grades 11-12.

FOUNDATIONS OF ADVANCED MANUFACTURING PRODUCTION II
Course 80807 5 periods/week/semester 1 credit (CTE credit)

This course is designed for students to apply the skills and knowledge students have gained from the previous foundations level course towards more advanced group projects and on-site skill development both at participating local manufacturers, and at The Caroline Career and Technology Center. Students will understand product and process control in a manufacturing environment, types of inventory and how control of inventory relates to industrial operations. They will learn to apply problem-solving techniques in a production environment including internal/external quality control and customer service. Students will explore and apply deeper industry content including foundations of workshop assembly, product development, design, product – prototyping – engineering.
Prerequisites and Other Notes: Recommended for grades 11 and 12. Students must take Industry Assessments to receive credit for the course.

APPLICATIONS OF ADVANCED MANUFACTURING I
Course 80808 5 periods/week/semester 1 credit (CTE credit)

This course will prepare students for both the Quality Practices & Measurement and the Manufacturing, Process, and Production certifications. Students will learn blueprint reading and basic measurement; they will use precision measurement tools and perform dimensional gauging. Students will study quality systems, such as ISO 9000 standard and identify methods of process improvement. Students will also be introduced to Statistical Process Control (SPC) along with types and applications of control charts. Students will learn the applications of root cause failure analysis as well as understand the role of managers and quality teams. Students will learn different methods of quality inspection, types of quality audits, when to take preventive and/or corrective action, perform effectiveness checks, and document and report all preventive and corrective steps taken.
Prerequisites and Other Notes: Recommended for grades 11 and 12.

APPLICATIONS OF ADVANCED MANUFACTURING II
Course 80809 5 periods/week/semester 1 credit (CTE credit)

This course will prepare students for the Maintenance Awareness certification. The topics covered in this class include: the overall maintenance process; maintenance of tools and equipment; documentation of maintenance; maintenance-related safety; potential maintenance issues with basic production systems; proper lubrication procedures; bearings and coupling reliability; and belt and chain drive reliability.
Prerequisites and Other Notes: Recommended for grades 11 and 12.

PROJECT LEAD THE WAY (PLTW) ENGINEERING

Project Lead the Way (PLTW) is a CTE instructional program that prepares students for further education and careers in engineering and engineering technology. The program consists of five courses that are divided into three groups: Foundation (POE, IED, DE); Specialization (CEA or AE), and Capstone (EDD). This is a five-course completer program where students may earn transcripted college credit from the Rochester Institute of Technology in New York. To earn college credit students must maintain an 85% average in the high school course and successfully pass the RIT Exam.

PLTW: INTRODUCTION TO ENGINEERING DESIGN (IED)
Course 80872 5 periods/week/semester 1 credit (CTE credit)

This course emphasizes the development of a design. Students use 3-D computer software to produce, analyze, and evaluate models of project solutions. They study the design concepts of form and function, then use state-of-the-art technology to translate conceptual designs into reproducible products.
Prerequisites and Other Notes: Students should be currently enrolled in or have completed Algebra I (303). Recommended for students in grades 9 or 10. Counts as a technology education credit.

PLTW: PRINCIPLES OF ENGINEERING (POE)
Course 80871 5 periods/week/semester 1 credit (CTE credit)

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the engineering social and political consequences of technological change.

DIGITAL ELECTRONICS (DE)
Course 80874 5 periods/week/semester 1 credit (CTE credit)

This course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuits to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students use mathematics and science in solving real-world engineering problems. This course covers several topics, including: analog and digital fundamentals; number systems and binary addition; logic gates and functions; Boolean algebra and circuit design; and decoders, multiplexers and demultiplexers.
Prerequisites and Other Notes: IED (80872), POE (80871). Grade 10 and 11.

CIVIL ENGINEERING AND ARCHITECTURE (CEA)

Course 80873 5 periods/week/semester 1 credit (CTE credit)

The major focus of the Civil Engineering and Architecture (CEA) is a long-term project that involves the development of a local property site. Teachers and students develop property as a simulation to model the real-world experiences that civil engineers and architects experience when developing property. Students work in teams, exploring hands-on projects and activities to learn the characteristics of Civil Engineering Architecture. Students use Rivet, which is a state-of-the-art 3D design software package from AutoDesk, to help them design solutions to solve their major course project. Students learn about documenting their projects, solving problems, and communicating their solutions to their peers and members of the professional community of Civil Engineering and Architecture.
Prerequisites and Other Notes: IED (80872), POE (80871), DE (80874). Recommended for Grades 11 and 12.

AEROSPACE ENGINEERING (AE)

Course 80876 5 periods/week/semester 1 credit (CTE credit)

This course introduces students to the world of aeronautics, flight, and engineering. Students in this course will apply scientific and engineering concepts to design materials and processes that directly measure, repair, improve, and extend systems in different environments. Students are expected to: Research and apply the history of flight and identify the major components of airplanes; demonstrate the principles of aerodynamics; explain fundamental theories of flight systems; apply Newton's Three Laws of Motion, the ideas associated with the design of rocket engines and how the creation of an action results in thrust that enables rockets to move; investigate space life sciences; design and videotape experiments that create a positive g-force; design composite (layered) plastic test samples using engineering composite materials; design and implement laboratory testing to measure the stiffness of composite materials and designs; and research types of intelligent vehicles and learn basic aspects of designing, building, and programming an intelligent vehicle.
Prerequisites and Other Notes: IED (80872), POE (80871), DE (80874). Recommended for Grades 11 and 12. Completer course for this major.

ENGINEERING DESIGN & DEVELOPMENT (EDD) - Capstone Course

Course 80875 5 periods/week/semester 1 credit (CTE credit)

The EDD course is the capstone course for Project Lead the Way. This course should be taken in the 12th grade, because it applies the knowledge and skills from the PLTW Foundation courses in solving and identifying technical problems. The course of study includes: Problem Identification and Justification; Research: Design Process; Innovation vs. Invention; Building and Testing a Prototype; Engineering Drawing Standards; CAD Solid Modeling; Tool Safety and Jury Presentation.
Prerequisites and Other Notes: Completion of all PLTW Foundation courses. IED (80872), POE (80871), DE (80874), and CEA (80873) and/or AE (80876).

TRANSPORTATION TECHNOLOGIES

AUTOMOTIVE TECHNICIAN

ASE certification is in the area of Maintenance and Light Repair. Students are required to schedule classes in a cohort of three classes each semester (or three consecutive blocks) which span one academic year of study. Students should schedule courses in the following manner:

Maintenance and Light Repair I (all three classes taken as a cohort)
Automotive – Suspension and Steering (880)
Automotive – Engine Performance A (881)
Automotive – Brakes (883)
Note: Must complete ASE industry assessments

Maintenance and Light Repair II (all three classes taken as a cohort)
Automotive – Electrical/Electronic Suspension (882)
Automotive – Heating and Air Conditioning Systems (884)
Automotive Engine Performance B (885)
Note: Must complete ASE industry assessments

AUTO-SUSPENSION AND STEERING
Course 880 5 periods/week/semester 1 credit (CTE credit)

This course provides the student with the knowledge and skills necessary to pass the ASE end-of-course assessment for automobile suspension and steering and immediately enter a career in this area and/or attend post-secondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary automobile suspension and steering repair tasks. Students will learn: steering system diagnosis and repair, front and rear suspension diagnosis and repair, miscellaneous service, wheel alignment diagnosis, adjust and repair, and wheel and tire diagnosis and repair. Upon successful completion of this course, students will be eligible to take and earn a Student ASE Achievement decal and certificate. **Prerequisites and Other Notes:** Engine performance skills are included. Recommended for grades 10-12. Students must take Industry Assessment to receive credit for the course. Recommended to take concurrently with Auto-Engine Performance Part A (881) and Auto-Engine Brakes (883).

AUTO-ENGINE PERFORMANCE-PART A
Course 881 5 periods/week/semester 1 credit (CTE credit)

This course provides the student with the knowledge and skills necessary to pass the ASE end-of-course assessment for automobile engine performance and immediately enter a career in this area and/or attend post- secondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications.

AUTO-ENGINE PERFORMANCE-PART B

Course 885 5 periods/week/semester 1 credit (CTE credit)

Through theory and hands-on experiences, students master the concepts and the ability to identify and perform necessary engine performance troubleshooting and repair tasks. Students will learn: engine related service, general engine diagnosis, computerized engine controls diagnosis and repair, ignition system diagnosis and repair, fuel systems diagnosis and repair, air induction system diagnosis and repair, emission control system diagnosis and repair to include positive crankcase ventilation system, exhaust gas recirculation system, intake air temperature controls, early fuel evaporation controls, and evaporative emission controls. Upon successful completion of this course students will be eligible to take the ASE Core area exam and earn a Student ASE Achievement decal and certificate.
Prerequisites and Other Notes: Auto- Engine Performance Part A (881), Auto-Suspension and Steering (880) and Auto Brakes (883). Recommended for grades 10-12. Students must take industry assessment to receive credit for the course.

AUTO-ELECTRICAL/ELECTRONIC SYSTEMS

Course 882 5 periods/week/semester 1 credit (CTE credit)

This course provides the student with the knowledge and skills necessary to pass the ASE end-of-course assessment for automobile electrical/electronic systems and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary electrical/electronic systems repair tasks. Students will learn: general electrical diagnosis, battery diagnosis and service, starting system diagnosis and repair, charging system diagnosis and repair, lighting system diagnosis and repair, gauge, warning devices and driver information systems diagnosis and repair, horn diagnosis and repair, wiper/washer diagnosis and repair, accessories diagnosis and repair. Upon successful completion of this course students will be eligible to earn a Student ASE Achievement decal and certificate.
Prerequisites and Other Notes: Auto-Engine Performance Part A (881), Auto-Suspension and Steering (880) and Auto Brakes (883). Recommended for grades 10-11.

AUTO - BRAKES

Course 883 5 periods/week/semester 1 credit (CTE credit)

This course provides the student with the knowledge and skills necessary to pass the ASE end-of-course assessment for automobile brakes and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications. Through theory and real-world experiences, students master concepts and the ability to identify and perform necessary brake repair tasks. Students will learn: hydraulic system diagnosis and repair, drum brake diagnosis and repair, disk brake diagnosis and repair, power assist units diagnosis and repair, miscellaneous diagnosis and repair to include wheel bearings, parking brakes, electrical diagnosis and repair of brake light system, and antilock system diagnosis and repair. Upon successful completion of this course students will be eligible to take and earn a Student ASE Achievement decal and certificate.
Prerequisites and Other Notes: Recommended for grades 10-12.

AUTO – HEATING & AIR COND. SYSTEMS

Course 884 5 periods/week/semester 1 credit (CTE credit)

This course provides the student with the knowledge and skills necessary to pass the ASE end-of-course assessment for automobile heating and air-conditioning systems and immediately enter a career in this area and/or attend post secondary education and/or training. Students develop diagnostic, technical and academic skills through classroom instruction and hands-on maintenance applications. Through theory and hands-on experiences, students master the
concepts and ability to identify and perform necessary air-conditioning troubleshooting and repair tasks. **Prerequisites and Other Notes:** Auto-Engine Performance Part A (881), Auto-Suspension and Steering (880) and Auto Brakes (883). Recommended for grades 10-12.

CAROLINE COUNTY PUBLIC SCHOOLS
HIGH SCHOOL PLAN OF STUDY

Student Name _____ Graduation Year _____

Student ID# _____

Career Interest: _____

RIASEC Code: _____

POST-SECONDARY PLAN:

☐ 2-year college ☐ Technical school ☐ 4-year college ☐ Employment ☐ Military

CAROLINE COUNTY PUBLIC SCHOOLS Post CCR Pathway:

☐ Dual Enrollment/Early College ☐ Career and Technical Education (CTE) ☐ Advanced Placement (AP)

☐ Apprenticeship Maryland Program (Youth Apprenticeship)

Career and Technology Education Program of Study:

☐Apprenticeship Maryland Program
☐Computer Aided Drafting Design
☐Construction Technology
☐Careers in Cosmetology
☐Food & Beverage Management (Prostart)
☐CASE (Curriculum for Agricultural Science)
☐PLTW Biomedical Sciences
☐Academy of Health Professions
☐Teacher Academy of Maryland (TAM)
☐FireFighter and Emergency Medical Responder (MFRI)
☐Military Service-Navy Junior Reserve Officers Training Course (NJROTC)
☐PLTW Computer Science
☐Advanced Manufacturing Professionals
☐PLTW Engineering
☐Automotive Technician

Advanced Placement Pathway: Take at least 5 AP Classes, 2 courses in the same content area, At least 2 content areas must be included (Choose 2 content areas) ☐ English Language Arts & Research ☐ Mathematics ☐ Science ☐ Social Studies ☐ Arts ☐ Computer Science ☐ World Languages

REQUIRED COURSES	# of CREDITS	GRADE 9	GRADE 10	GRADE 11	GRADE 12	CREDITS EARNED
ENGLISH	4					
MATH (one each year)	4					
SCIENCE	3					
SOCIAL STUDIES	3					
TECHNOLOGY ED Credit	1					
FINE ARTS	1					
PHYS. ED	1					
HEALTH	1					
FINANCIAL LITERACY	1					
OTHER REQUIREMENTS						
2 credits of the same World Language **and 3 credits** in electives (Non-CTE majors only)	5					
OR						
3-4 credits by successfully completing a State-approved Career & Technology Program **and 1 credit** in an elective	5 *(Credits may vary by CTE major)*					
Students must also meet service-learning and Maryland assessment requirements.						