2019 - 2020

High School Program of Studies

“Preparing Students for College and Career”

WCPS | Washington County Public Schools
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School Year 2019-2020
Washington County Public Schools offers a variety of traditional courses, special programs, and other challenging educational opportunities for every high school student, all of which can be found in the Program of Studies. Beyond the general course descriptions, students will also find graduation requirements, University System of Maryland requirements, and Career Technology Education Completer Program information in the booklet.

Students are encouraged to work with school counselors to assist them in selecting courses based on academic interests and strength. In the back of the booklet there is a sample secondary education plan, which is a great blueprint for your future coursework. Please review it carefully and meet with your high school counselor to establish or update your plan in accordance with your interest and future plans.

The courses you choose are important, as each one will impact your high school experience, your options for postsecondary education, and your career path. High school is a great time to explore many academic paths, and I encourage you to choose challenging courses that will prepare you for a future career or to continue your education.

WCPS academic staff members are here to support your success. If you, your parent(s) or guardian(s) have questions about the registration process, graduation requirements, or options available, please contact your school counselor.

Best wishes for a very successful year of learning.

Respectfully,

[Signature]

Boyd J. Michael, Ed.D.
Superintendent of Schools
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Graduation Requirements

To earn a high school diploma, students must:
• Earn the minimum number of required credits
• Complete the requirements for a completer program
• Meet the state required assessments
• Complete a minimum of 75 hours of approved student service learning hours

Credit Requirements
The minimum credit requirements for graduation from Washington County Public Schools adhere to, but are not limited by, the standards established by the State of Maryland. Students must earn a minimum of 24 credits as outlined in the table below:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Subject</th>
<th>Requirements</th>
<th>Required Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>English</td>
<td>English 9-12 (or Honors English 9-12)</td>
<td>English 10 MCAP</td>
</tr>
<tr>
<td>4</td>
<td>Mathematics</td>
<td>1 Algebraic concepts</td>
<td>Algebra I MCAP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Geometric concepts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 additional Mathematics credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beginning with the 9th grade class entering high school in 2014-2015, each student shall enroll in a mathematics course in each year of high school.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Science</td>
<td>1 Biology</td>
<td>HS-MISA/Biology MCAP</td>
</tr>
<tr>
<td></td>
<td>(Laboratory-based)</td>
<td>2 additional Science credits</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Social Studies</td>
<td>1 United States Studies II</td>
<td>Government MCAP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Local, State, and National Government</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 World History</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Physical Education</td>
<td>Physical Education I</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Health/Life Skills</td>
<td>Health/Life Skills course</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fine Arts</td>
<td>Any Fine Arts course</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Technology Education</td>
<td>Foundations of Technology or Introduction to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engineering Design</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Electives</td>
<td>Any elective courses</td>
<td></td>
</tr>
</tbody>
</table>

Completer Requirements
Students must also earn credits to satisfy the University of Maryland Completer Program and/or a Career and Technology Education Completer Program. In addition to the requirements listed above, the University of Maryland completer requires 2 World Language credits in the same language, and 4 credits of mathematics. The 4 mathematics credits must include Algebra I, Geometry and Algebra II. Students who complete Algebra II prior to their final year must complete the four-year mathematics requirement by taking a course or courses that utilize non-trivial algebra such as Pre-Calculus/Trigonometry, Calculus, Statistics, and College Algebra.

Maryland Comprehensive Assessment Program (MCAP)
Students must take a combination of MCAP assessments for English 10, Algebra I, Science and Government. Students must achieve one of the following current criteria to meet that graduation requirement:
1. A passing score on each test.
2. A combined overall score equal to the combined minimum passing score of all required assessments.
3. A specific score on an MSDE approved comparable assessment(s).
4. Successful completion of the MCAP/Bridge Plan requirements.

Student Service Learning Requirements
Students must complete a minimum of 75 hours of Student Service Learning hours. Contact your school’s Counseling Office for more information.
Maryland Comprehensive Assessment Program (MCAP)

Maryland Assessments at the High School Level
The Maryland Integrated Science Assessment (MISA), Government HSA and the Algebra I and English 10 MCAP Assessments are challenging tests that students must pass to earn a Maryland high school diploma. They measure student achievement of the state’s Maryland College and Career-Ready Standards (MCCRS), which are identified by the Maryland State Department of Education as the skills and knowledge necessary to show understanding of each course’s content and which are embedded in the Washington County Public Schools (WCPS) essential curriculum. The courses associated with these assessments are typically taken during freshman and sophomore years. Some students take the MCAP Algebra I in Middle School.

High School Assessments
Students must meet the Maryland High School Assessment requirements:
✓ Take the MCAP in English 10, Algebra I, Science, and Government
✓ Pass all tests or
✓ Earn a combined score equal to the total of the three passing scores or
✓ Earn a passing score on approved substitute tests or
✓ Meet the MCAP requirements through successful completion of the Bridge Program

* The Biology HSA was replaced by the Maryland Integrated Science Assessment (MISA) beginning in 2017-18.

MCAP/MISA Graduation Requirements
To receive the Maryland High School Diploma, students will either:

Take and pass MCAP assessments in English 10, Algebra I, Government, and MISA or a state-approved substitute assessment, such as the Advanced Placement Test in the same subjects.

OR

Earn a combined score equal to the passing scores of required assessments. *Passing scores are as follows:

<table>
<thead>
<tr>
<th>MCAP Assessment</th>
<th>Passing Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>400</td>
</tr>
<tr>
<td>Government</td>
<td>394</td>
</tr>
<tr>
<td>MCAP English 10</td>
<td>725**</td>
</tr>
<tr>
<td>MCAP Algebra I</td>
<td>725**</td>
</tr>
<tr>
<td>MISA</td>
<td>TBD</td>
</tr>
</tbody>
</table>

OR

Meet the requirements through the Bridge Plan for Academic Validation.

Note: Students taking the MCAP Algebra I and MCAP English 10 assessments in 2016-2017 school year and beyond are required to pass the assessments.

** The cutoffs for Algebra I/English 10 assessments is 725 for 2016-2017. An increase to 750 as a cutoff is under consideration.

* Not all assessments may be combined.
Assessment Outcomes
The following chart lists possible outcomes after taking the Maryland High School Assessment and MCAP.

<table>
<thead>
<tr>
<th>MCAP Course</th>
<th>Associated Assessment</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>Pass</td>
<td>On track to receive Maryland High School Diploma</td>
</tr>
<tr>
<td>Pass</td>
<td>FAIL</td>
<td>Receive remediation and retake exam</td>
</tr>
<tr>
<td>FAIL</td>
<td>Pass</td>
<td>Retake course</td>
</tr>
<tr>
<td>FAIL</td>
<td>FAIL</td>
<td>Retake course and exam</td>
</tr>
</tbody>
</table>

Bridge Plan for Academic Validation Option
The Maryland State Department of Education recognizes that there will be some students who will struggle on the MCAPs, even after they take the tests several times and take advantage of academic remediation. The Bridge Plan for Academic Validation is an alternative means to meeting the graduation requirements.

The Bridge Plan is for students who have passed the MCAP-related course, but have not yet passed the associated assessment after two or more attempts.

Students utilizing the Bridge Plan to meet the assessment graduation requirements complete projects in the content areas to demonstrate their knowledge and skills of the course. The projects are evaluated by a panel of educators to determine proficiency in the content area. The Bridge Plan will not be required for students participating in the MISA during 2017-18 and 2018-19.

The Alternative Maryland School Assessment (Alt-MSA) and the Multi-State Alternative Assessment (MSAA)

The Alt-MSA is based on Alternate Academic Achievement Standards. Students who participate in the Alt-MSA if, through the individualized educational program process, it has been determined that they meet specific eligibility criteria. The Alt-MSA assesses and reports student attainment of individually selected indicators and objectives from the Science Maryland College Career Ready Standards. Students participate in the Alt-MSA in grades 5, 8 and 10.

The MSAA assessment is administered in grades 3-8 and 11. The MSAA assessment is an online computer adaptive assessment that is given near the end of the school year.

College and Career Ready Determination

The Maryland Legislature passed The College and Career Readiness and College Completion Act of 2013 (CCRCCA) in the spring of 2013. This legislation required specific action in regard to developing and implementing transition courses for high school students. Specifically, beginning in 2015-2016, all students shall be assessed no later than 11th grade to determine whether the student is ready for college-level credit-bearing course work in English language arts/literacy, and mathematics. By 2016-2017 MSDE, in collaboration with local school systems and public community colleges, shall develop and implement transition courses or other instructional opportunities to be delivered in the 12th grade to students who have not achieved college and career readiness by the end of 11th grade.

In Maryland, college and career readiness in terms of academic preparation was defined in the ESEA Flexibility Request, Principle I: College- and Career-Ready Expectations for All Students, and by the College Success Task Force as: The student is prepared to succeed in credit-bearing postsecondary introductory general education courses or in an industry certification program without needing remediation.
Grading

The Board of Education of Washington County recognizes its responsibility for assuring the practice of regularly reporting the progress of pupils as they proceed through their formal educational experiences. High schools will employ the practice of reporting pupil achievement as follows:

- 90-100 indicates performance that consistently exceeds Washington County standards and requirements;
- 80-89 indicates performance that consistently and occasionally exceeds Washington County standards and requirements;
- 70-79 indicates performance that meets Washington County standards and requirements;
- 60-69 indicates performance that minimally meets Washington County standards and requirements;
- 0-59 indicates failure to meet Washington County standards and requirements.

Additionally, student effort will be assessed and reported each marking period as follows:

- “+” indicates demonstration of outstanding effort;
- “*” indicates demonstration of average effort;
- “-” indicates the need to exert more effort;
- “0” indicates the failure to exert any effort.

Reporting Student Progress

Report cards are available in digital format to parents at the conclusion of each marking period. The interim/progress report reflects the progress of the student through the date of issuance and does not represent the marking period or final grade.

Promotion

Students in grades 9 through 12 earn credits for graduation through completion of courses. Students must have a minimum of four credits for promotion to grade 10, ten credits for promotion to grade 11, and sixteen credits for promotion to grade 12.

Weighted Quality Point Values

Weighted Quality Point Values are awarded to students who accept the challenges of more rigorous courses of study, while ensuring maintenance of a high grade point average (GPA). Rigorous courses are identified as receiving “accelerated credit,” “AP credit,” or “IB credit” in its course description. AP = Advanced Placement  IB = International Baccalaureate

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Standard Quality Point Value</th>
<th>Accelerated Quality Point Value</th>
<th>AP or IB Quality Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>4.0</td>
<td>4.72</td>
<td>5.0</td>
</tr>
<tr>
<td>80-89</td>
<td>3.0</td>
<td>3.54</td>
<td>4.0</td>
</tr>
<tr>
<td>70-79</td>
<td>2.0</td>
<td>2.36</td>
<td>3.0</td>
</tr>
<tr>
<td>60-69</td>
<td>1.0</td>
<td>1.18</td>
<td>2.0</td>
</tr>
<tr>
<td>0-59</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Honor Rolls and Graduation Honors

A student must have 80% and above in all subjects to be on the Honor Roll. To be on the Distinguished Honor Roll, a student must have all 90’s and above in all subjects. Academic honors designation at commencement will be awarded as follows:

Highest Honors: Minimum 4.0 GPA, at least 14 credits in courses taken in high school (Grades 9-12) identified as Honors and/or AP/IB, and the completion of University of Maryland requirements

High Honors: Minimum 3.75 GPA, at least 12 credits in courses taken in high school (Grades 9-12) identified as Honors and/or AP/IB

Honors: Minimum 3.5 GPA

Maryland Scholars

The Maryland Scholars program is designed to encourage students to complete a rigorous course of study in high school to ensure that they are well prepared to succeed in college, the workplace, and in life. Students who participate in this course of study will contribute to a more highly skilled and productive workforce and a stronger, more prosperous economy. Maryland Scholars Requirements:

- 4 credits of English
- 4 credits of Math (Algebra I, Geometry, Algebra II)
- 3 credits of Science (Biology, Chemistry, and one additional lab science-Physics preferred)
- 2 credits of the same World Language
- Minimum 3.0 G.P.A. or higher
Appropriate counseling will be provided to students regarding course selection. Every effort is made to build a master schedule to meet the needs of all students. Last minute changes in student schedules or the master schedule can negatively impact a significant number of students. After final student schedules have been created, changes will be considered only on rare occasions. Student requests for course changes will not be accepted after the fifth class period of the course. There is no guarantee that the student’s request can be honored. Any student-requested course change may be recorded as a “W” on the student’s transcript. In extenuating circumstances, the principal has the final authority on class changes and grading issues. Final grades will be based on the average of all marking period grade reports per credit. Beginning and end of marking periods will be recommended by the Calendar Committee and approved by the Board of Education.

A student not completing a course will receive a failing grade and earn no credit.

Credits from Middle School
Credit will be awarded for courses taken prior to enrollment in high school in each academic curricular area (e.g., Algebra I, and world languages) under the following circumstances:

- The course is identified as an approved course for high school credit;
- The middle school course follows the outcomes and rigor of the approved high school course;
- The student passed the approved middle school course and any associated state assessments.

Credit awarded in the middle school will not be calculated in a student’s high school grade point average (GPA). Only grades earned for courses taken in high school will be used in the calculation of a student’s high school GPA.

Credit will not be awarded in the middle school when it is determined that the course should be repeated before continuing with the sequence of courses in any given content area. Transfer students will have transcripts reviewed on an individual basis to determine if MSDE guidelines permit awarding of credit.

Credit by Exam
Students who have met all other graduation requirements may earn credit through examination for English 12 and Algebra II. Students who wish to be considered for this option must contact their school counselor.

**English 12** - Students who desire to obtain Maryland high school graduation credit by examination for English 12 must take two tests: SAT and SAT Subject Test in Literature. To obtain the credit, the student must achieve a minimum combined score of 1080 on the SAT Subject Test in Literature and the writing portion of the SAT with a minimum of 520 on the writing portion of the SAT.

**Algebra II** - Students who wish to receive Maryland high school graduation credit by examination for Algebra II must achieve a minimum of 1150 on the American Diploma Project Algebra II exam developed by Maryland and 14 other states under the leadership of Achieve, Inc. After conducting a standards process, Achieve determined that a score of 1150 indicates a student is prepared for college.

Antietam Academy Twilight and Evening High Program
Antietam Academy Twilight and Evening High Program (AATEHP) offers Washington County students the opportunity to take original and repeat high school credit courses during extended hours. AATEHP follows the standards established for all WCPS high schools. Students have the opportunity to earn between 1 to 4 credits each semester at AATEHP. The program is open to WCPS students presently enrolled in a regular day school program. AATEHP classes are offered at Antietam Academy and Washington County Technical High School Monday through Thursday. Enrollment at AATEHP after the scheduled registration times requires the review and approval of the AATEHP administrator prior to enrollment.

Blended Learning
WCPS offers students multiple ways to earn credits towards a Maryland high school diploma including blended learning opportunities. In blended learning courses, 80% or less of the instruction is conducted online. High schools may offer Advanced Placement (AP), honors, and grade-level blended learning courses during the school day. Twilight and Evening High Programs at Antietam Academy offer WCPS students the opportunity to earn original high school credit through blended learning courses and to repeat courses after the school day. For further information, please contact your school counselor to discuss potential blended learning opportunities.
WCPS Academic Eligibility For Participation in High School Extracurricular Activities, Including Athletics

Note: The following information is a general summary of the WCPS academic eligibility requirements. For some specific information please refer to the Board of Education Policy IGDL, Student Activities Eligibility (High Schools), and the academic eligibility section of the Washington County Public Secondary Schools Athletic Association (WCPSSAA) Handbook (revised annually).

1. Students enrolled in a WCPS high school or the STEMM Middle College program at HCC who have a full day, and who fail two (2) or more classes in a marking period are ineligible to participate in extracurricular activities.
2. Students enrolled in a WCPS high school who have less than a full schedule, meaning they are not scheduled in a WCPS course each instructional period of the day must pass all courses to be eligible.
3. Grades earned at Evening High School do not affect academic eligibility.

For interpretation and/or additional information please check with the athletic director in each high school.

National Collegiate Athletic Association (NCAA) Division I - Eligibility Standards

For athletic scholarships at Division I colleges, a procedure must be followed. All student-athletes must register with the NCAA Eligibility Center. There is a charge of $90.00 for this. Students must meet the NCAA’s academic standards to practice, compete, and receive an athletic scholarship as a freshman. The standards are different for different divisions.

Students planning to enter college who wish to be eligible to participate in athletics at a Division I college or university will need to show the following 16 core courses on their high school transcripts:

• 4 credits in English
• 3 credits of mathematics (Algebra I or higher)
• 2 credits of natural/physical science (one must be a lab science)
• 1 additional credit of English, math, or natural/physical science
• 2 credits of social studies
• 4 additional core courses from those listed above or from foreign language
• Ten (10) core courses completed before the seventh semester; seven (7) of the 10 must be in English, math or natural/physical science.
• Theses courses/grades are “locked in” at the start of the seventh semester (cannot be repeated for grade-point average (GPA) improvement to meet initial-eligibility requirements for competition).
• Students who do not meet core-course progression requirements may still be eligible to receive athletics aid and practice in the initial year of enrollment by meeting academic redshirt requirements.

In addition, students must meet the NCAA Core GPA/Test Score Sliding Scale. This is a scale of core GPA’s (grade-point averages) and SAT or ACT scores. It allows for a student to compensate for a lower SAT or ACT score with a higher GPA, or compensate for a lower GPA with a high SAT or ACT score. School counselors can advise students as to what courses count as core courses. For more information about NCAA initial-eligibility requirements, please refer to the NCAA web site or call 1.877.262.1492 (weekdays 8:30 a.m. – 6:00 p.m.). The website address is www.eligibilitycenter.org or www.2point3.org.
WCPS Advanced Programs is the umbrella term for programs that serve students identified as having gifted and talented education (GATE) needs, highly able learners, and emergent scholars. Specific Advanced Programs include WCPS High School Magnet Programs, WCPS Honors and Advanced Placement courses, and WCPS Emergent Scholars Programs. Identified GATE students and other advanced learners have additional program options through Career Technology Education (CTE) Academies and Completers; Early College options; and Specialized Programs, such as Barbara Ingram School for the Arts and Washington County Technical High School.

Advanced Learner Definitions

**Gifted and Talented**

A gifted and talented learner is defined by Maryland's Annotated Code § 8-201 as an elementary or secondary student who is identified by professionally-qualified individuals as: (1) Having outstanding talent and performing, or showing the potential for performing, at remarkably high levels of accomplishment when compared with other students of a similar age, experience, or environment; (2) Exhibiting high performance capability in intellectual, creative, or artistic areas; (3) Possessing an unusual leadership capacity; or (4) Excelling in specific academic fields.

Students are formally identified as “gifted and talented” (GATE) based on multiple criteria of ability/aptitude, performance, and potential; however, these students typically have ability stanine scores of 8 or 9 if they are native speakers of English. English Learners (EL) with a nonverbal stanine score of 7, 8, or 9 are also identified as GATE students. Students who are twice exceptional (2e) or “gifted and distractible” (have Attention Deficit/Hyperactivity Disorder, anxiety, autism, depression, dysgraphia, dyslexia, etc.) are also identified as WCPS's GATE students; these students may have large discrepancies between areas of the Cognitive Abilities Test (CogAT) or between the CogAT and performance.

*It is critical to note that the gifted and talented identification process is designed to dictate specialized educational needs for the student, rather than label or dictate privilege.

**Highly Able**

A highly-able learner is one who demonstrates above average ability and/or performs at advanced levels in one or more content areas.

**Emergent Scholar**

WCPS Emergent Scholars have the desire and determination to take more rigorous courses and may perform at an average level. Emergent Scholar programs are designed for highly motivated students who are in the academic middle and aspire to attend a 4-year college or university and require the supports to help them achieve this goal. WCPS Emergent Scholars are typically those who will be the first in their family to attend and/or complete college.

WCPS Emergent Scholars may also participate in the Promise Pathway Program at their home schools. The Promise Pathway Program is a partnership between Hagerstown Community College and WCPS and places eligible students in the pipeline to receive additional academic guidance, mentoring, and access to financial assistance for college coursework.

Advanced and GATE Learner Courses/Program Guide

**Advanced Placement (AP) and Honors Courses**

• Available at every school in WCPS
• Listed and described within the Course Description Section for each content area

**Barbara Ingram School for the Arts**

• BISFA is a dedicated arts high school for students in Grades 9-12
• Students must successfully audition or produce a portfolio as part of the application process to attend this program for intellectually and/or creatively gifted students.
Career Technology Education (CTE) Academies and Completers

- Offerings vary by school
- See the following sections:
  - Academy, Advanced, Magnet, and Specialized Programs
  - Academies and Magnet Programs
  - Career and Technology Education

Early College Options

- STEMM Middle College Program
  - See the following sections:
    - Academy, Advanced, Magnet, and Specialized Programs
    - Early College Programs

Emergent Scholars Programs

- AVID
  - Schools: North Hagerstown High School, Smithsburg High School, South Hagerstown High School, Williamsport High School
  - See the following sections:
    - Academy, Advanced, Magnet, and Specialized Programs
    - Additional Educational Opportunities—lists courses

HCC Promise Pathways

- Schools: All
- See the following sections:
  - Emergent Scholars Programs

- HCC TRiO Upward Bound
  - Schools: Hancock High School, North Hagerstown High School, South Hagerstown High School, Williamsport High School
  - See the following section
    - Early College Programs

High School Magnet Programs

- Academic Leadership Academy (ALA) at South Hagerstown High School
- AP Capstone™ at Clear Spring High School
- International Baccalaureate Diploma Programme at North Hagerstown High School
- International Baccalaureate Career-related Programme at North Hagerstown High School
- For the programs listed above see the following sections:
  - Academy, Advanced, Magnet, and Specialized Programs
  - Academies and Magnet Programs
  - Course Description sections for each content area

Washington County Technical High School

- "Tech High" is a comprehensive academic and career technology high school for students in Grades 11 and 12.
- During Grade 10, students must apply and be accepted to attend.
- See the following sections:
  - Academy, Advanced, Magnet, and Specialized Programs
  - Academies and Magnet Programs
  - Career and Technology Education
WASHINGTON COUNTY PUBLIC SCHOOLS & HAGERSTOWN COMMUNITY COLLEGE

EARLY COLLEGE PROGRAMS

Washington County Public Schools (WCPS) and Hagerstown Community College (HCC) work in partnership to provide high achieving WCPS students opportunities to earn college credit while in high school, including the Science, Technology, Engineering, Math, and Medical (STEMM) Middle College Program, Upward Bound Program, Concurrent Enrollment, and Dual Credit.

**STEMM Middle College Program***

WCPS students who are accepted as students to HCC following the successful completion of specific 9th and 10th grade courses may qualify to attend the STEMM Middle College program at HCC. Students in the program will take dual credit courses that apply toward a high school diploma and a college diploma or certificate.

*The STEMM Middle College Program requirements and the criteria for a high school may apply to some HCC programs outside of STEMM.*

1. To participate in the STEMM Middle College program at HCC, WCPS students must attend a WCPS high school, pass the 14 courses listed below, and have a Grade Point Average (GPA) of 3.75 or higher by the end of 10th grade:
   a. Honors English 9 and Honors English 10
   b. Honors CC Geometry and Honors CC Algebra II  
      (Note: students can no longer take Geometry in middle school)
   c. Honors Biology and Honors Chemistry
   d. Honors U.S. Studies II and Honors Government
   e. Honors World Language Level 1 and Honors World Language Level 2  
      (Note: students can earn credit for World Language courses taken during middle school)
   f. Physical Education and Health/Life Skills
   g. A fine art
   h. Foundations of Technology

2. While attending HCC full time during the 11th and 12th grade, every WCPS student in the STEMM Middle College Program must pass the following courses to earn both high school and college credit and qualify for a high school diploma:
   a. MAT-101 College Algebra in the 11th grade and another college-level math in the 12th grade
   b. Eng-101 English Composition in the 11th grade and Eng-102 English Composition and Literature or English-112 Technical Writing during the 12th grade
   c. HIS-102 World History in the 11th grade
   d. A college level, lab-based science during the 11th grade
   e. A minimum of four (4) additional college-level courses

The final grades earned in the core courses at H.C.C. (a,b,c, and d above) will be calculated in the student’s high school GPA, using the Accelerated Quality Point Values. The additional credits earned at HCC (e) will be calculated in the student’s high school GPA, using the Standard Quality Point Values. Students will receive 1 high school credit per dual credit course, and HCC will determine the number of college credits the student will earn for each course. All courses taken at HCC as part of the STEMM Middle College Program will be recorded on the student’s high school transcript.

The HCC programs available to WCPS students through the STEMM Middle College Program are listed below.

- A.S. Arts and Sciences—Option in Biology
- A.S. Arts and Sciences—Option in Chemistry
- A.S. Arts and Sciences—Option in Mathematics (Calculus)
- A.S. Arts and Sciences—Option in Physics
- A.S. Arts and Sciences—Option in Pre-Med/Biology
- A.S. Computer Science
- A.S. Cybersecurity
- A.S. Engineering
- A.A.S. Alternative Energy Technology
- A.A.S. Biotechnology
- A.A.S. Digital Instrumentation and Process Control
- A.A.S. Mechanical Engineering Technology
- A.A.S. Simulation and Digital Entertainment—Track A: Programming and Development
- Pre-Pharmacy

*9*
Upward Bound Program
WCPS students who are accepted into the Upward Bound Program following the successful completion of the eighth grade are eligible to earn either high school elective credit or college credit during the summer at HCC. The high school credits earned in courses instructed by WCPS teachers will be graded pass/fail and upon successful completion, the credits will count toward graduation requirements, but will not be calculated in the student’s GPA. The credits earned in the college courses do not apply toward high school graduation requirements and will not be calculated in the student's high school GPA.

Concurrent Enrollment
WCPS students who are accepted as students to HCC following the successful completion of the 10th grade may attend their home school part of the day to complete their high school graduation requirements and electives and attend HCC part of the day to take college courses. The credits earned in the college courses do not apply toward high school graduation requirements and will not be calculated in the student's high school GPA.

Dual Credit
Qualifying students can take designated dual credit courses that are taught in high school. Upon successful completion of a dual credit course, students will be awarded both high school and college credit and the grade will be calculated in the high school GPA, using the Standard Quality Point Values.

Recording and Awarding High School Credits
The practice of recording the HCC courses on a high school transcript and calculating the grades earned in those course into a WCPS student’s high school GPA applies only to the credits earned in the STEMM Middle College and Dual Credit courses; the college credits earned through Concurrent Enrollment do not receive high school credit and are not calculated into the high school GPA.

Tuition Rates to Hagerstown Community College
WCPS students attending HCC will pay a fee equivalent to 90% of a special discounted tuition rate that is 25% less than the regular tuition rate for the first four courses. After four courses, students will pay a fee equivalent to 90% of the regular tuition rate. Some students may qualify for additional tuition assistance.
Articulation Program with Hagerstown Community College

This agreement between Washington County Public Schools and Hagerstown Community College has been entered into for the purpose of assisting students in the transition from high school to college. The agreement specifies the conditions under which Hagerstown Community College awards credit to students for work successfully completed while they attend Washington County public high schools. With this latest articulation agreement, Washington County Public Schools and Hagerstown Community College reaffirm their partnership and their commitment to student success. While Hagerstown Community College maintains transfer agreements with many baccalaureate institutions, student should be aware that some institutions and programs might not accept college credits granted for high school work. Students should consult with their Hagerstown Community College advisor prior to transfer.

Articulation Procedures (WCPS) and (HCC)

The purpose of this document is to outline responsibilities for ensuring that students earn college credit for coursework that meets requirements specified in the HCC/WCPS Articulation Agreement. Responsibilities are shared by WCPS, HCC, and students.

**Washington County Public Schools**

- Communicate details of articulation agreements, including time limits for earning articulated credit, to high school principals, teaching staff, counseling personnel, and students.
- Program or course instructor and school counselor complete and sign Articulated Course Certification form.
- A copy of the Certification form is maintained in student’s permanent record.

**Student**

- Apply for admission to HCC and provide a copy of the high school transcript.
- Submit a copy of the Articulated Course Certification form to Enrollment Services staff upon admission to the college or during the first semester of enrollment at HCC. Application for articulated credit must be submitted within twelve months of high school graduation.
- Discuss the articulation process with HCC advisor.
- Be enrolled as a student in good standing at HCC and successfully complete requirements described in the Articulation Agreement.

**Hagerstown Community College**

- The Director of Instructional Support Services maintains articulation agreements and coordinates updates to the agreements with WCPS.
- Office of Academic Advising and Registration staff, advisors, division directors, and faculty members maintain current knowledge of relevant articulation agreements and procedures.
- The Office of Financial Aid and Records maintains copies of completed Articulated Course Certification forms in student academic folders.
- Upon completion by the student of requirements specified in the articulation agreement, the Office of Financial Aid and Records awards the appropriate number of credits.
- The Registrar posts the credits awarded on the student's transcript and sends a copy of the transcript to the student.
- At the close of each semester, the Registrar sends a report listing the numbers of students receiving articulated credit and their programs of study to the Vice President of Academic Affairs and Student Services.

Articulation agreements have been developed for the following courses or programs of study:

- Academy of Finance
- Academy of Teaching Professions
- Software Specialist
- Advanced Placement Calculus
- Advanced Placement Computer Science (JAVA)
- Advanced Placement Statistics
- Art History
- Child Care Guidance and Management
- Computer Game Development and Animation
- Computer Repair and Networking, Cisco Academy
- Homeland Security – Law Enforcement
- Design and Managing Websites
- English
- Finance and Accounting
- Health Occupations
- Honors Computer Programming
- Honors Pre-Calculus
- Honors Trigonometry
- AP/IB Computer Science
- Interactive Media Production
- Marketing
- Multimedia and Graphic Design
- Oracle Academy
- PLTW Biomedical Sciences
- PLTW Pre-engineering
- Word Processing
- World Languages

Copies of the updated articulation agreement are available in school counseling centers and from the Supervisor of Career Technology Education. Some programs have articulation agreements with other institutions of higher education; interested students should check with their teacher.
Emergent Scholars Programs

AVID (Advancement Via Individual Determination) at
• E. Russell Hicks Middle School
• North Hagerstown High School
• Smithsburg High School
• South Hagerstown High School
• Williamsport High School

AVID is an in-school academic support and college readiness system that prepares students for college eligibility and success. AVID focuses on students in the academic middle – B and C students – who have the desire to attend college and the willingness to work hard. Students who are capable of completing rigorous curriculum, but maybe falling short of their potential, are selected to participate in AVID after an application and interview process. AVID eases students into WCPS Honors Courses that align to their area(s) of strength to prepare them for Advanced Placement Courses. Formally-trained tutors facilitate AVID students’ access to rigorous curriculum through twice-weekly tutoring sessions. The involvement of parents is a priority in AVID. Parents sign a contract agreeing to support all AVID academic requirements; encourage and support their children’s academic success; and attend AVID parent meetings.

Emergent Scholars who may be a fit for AVID are students on the cusp of achieving above-grade level performance; they may also have been recommended by their teacher of counselor. Grade 8, 9, and 10 students interested in AVID can request an application from the participating high school in their attendance zone. Students may also be invited to apply to AVID based on their performance. Qualified applicants will be interviewed by one or more AVID Site Team members.

Hagerstown Community College’s Promise Pathway Program

Designed to “address the financial barriers for Washington County Students who have the academic readiness and the commitment to succeed in college” (www.hagerstowncc.edu). The Promise Pathway Program is available at all schools and places eligible students – known as “Prospects” – in the pipeline to receive academic guidance, mentoring, and access to financial assistance for college coursework. Prospects remain in the pipeline until Grade 10 or later, when they can formally be awarded admission to an HCC Program of Study. The majority of Promise Pathway Program services begin in Grade 10. Prospects must maintain a minimum 2.5 grade point average, have documented financial need, and commit to complete the Free Application for Federal Student Aid (FAFSA). All Prospects are required to participate in two bridge program meetings during the school year.

Students living in Washington County can apply to the program, with the support of their parents and school officials, as early as sixth grade, as program “prospects.” Student prospects will need to do well in school to be admitted in the program. They will not receive the financial support promise until 10th grade or later, when the student is formally awarded early admission status into an HCC program of study.

The primary criteria for admission into and retention within the program are maintenance of a minimum 2.5 GPA in high school and at HCC, documented family financial need, and a commitment to complete the FAFSA application. All applicants must apply for and use all available federal and state aid, as well as external scholarships they have, before the “promise dollars” are awarded.

HCC TRiO Upward Bound at
• Hancock Middle Senior High School
• North Hagerstown High School
• South Hagerstown High School
• Williamsport High School

The HCC TRiO: Upward Board Program is a year-round college-preparatory program made possible through a U.S. Department of Education grant.

HCC Upward Bound is a program designed to provide students with the skills and motivation necessary to succeed in high school and college.

Upward Bound’s mission is to assist low-income, and/or first-generation college bound high school students in the successful completion of secondary education by preparing them academically as well as socially for enrollment and completion of higher education.
This is accomplished by providing participants with rigorous and nurturing academic courses; tutoring services; college-preparatory workshops; academic, college, and financial aid advising; career exploration; leadership opportunities; and cultural enrichment.

Upward Bound offers services to students through after-school programs and Saturday Academies during the school year as well as a six-week Summer Enrichment or Summer Bridge Programs.

These Emergent Scholars are students who have a least a 2.5 GPA in college pre/core classes and are committed to attending post-secondary education. Incoming or current freshmen or sophomores enrolled at Hancock Middle Senior High School, Norther Hagerstown High School, South Hagerstown High School, or Williamsport High School who are potential first generation college student or meet federal eligibility requires may apply.
In today’s economy, all high school graduates need some post-secondary education and/or training if they are to have or maintain their career options and opportunities. This post-secondary education can come in many forms – a four-year university, a community college, a technical or vocational school, or a formal apprenticeship – all of which can prepare students for a career.

What does it mean to be college and career ready?
Students who are career-ready have the knowledge and skills needed to qualify for and be successful in the education or training required for their chosen career.

Students who are college-ready possess the knowledge and skills needed to enter and succeed in entry-level, credit bearing courses at two- or four-year colleges without the need for remedial coursework.

College and career readiness skills include reading, writing, mathematics, communications, teamwork, critical thinking, problem-solving, and technology. Colleges expect applicants to be enrolled in rigorous course work during all 4 years of high school. Completion of Honors, Advanced Placement, and specialized course work improves the opportunity for success in college and readiness for the work world.

WCPS offers a number of advanced and specialized programs to match the aptitudes and interests of its students. Families are encouraged to attend open house events and consult with program contacts to gather additional information about the benefits of each program.

Advanced Placement (offered at all high schools)
Advanced Placement (AP) courses offer highly motivated students the opportunity to take college-level classes in high school. AP programs are available at every high school and are designed to challenge students in various content areas and prepare them to take the Advanced Placement (AP) Exam for a given course of enrollment. A qualifying score on an AP exam can mean that a student is eligible to receive college credit at a college/university and it can often augment a student’s application to that school. Students who take an AP course are expected to take the Advanced Placement exam offered for that course in early May. Washington County Public Schools pays half the cost of the AP exam. Other financial support may be available. For more specific information on Advanced Placement courses and examinations, consult a school counselor or the Washington County Public Schools’ Advanced Programs office. Information is also available at AP Central of the College Board website: www.collegeboard.com.

AP Capstone™ (offered at Clear Spring High School)
AP Capstone™ is an innovative diploma program that allows students to develop the skills that matter most for college success: research, collaboration, and communication. The program consists of two courses taken in sequence: AP® Seminar and AP Research. Developed in direct response to feedback from higher education faculty and college admission officers, AP Capstone complements the in-depth, subject-specific study of other Advanced Placement® courses and exams. Students who earn scores of 3 or higher on AP Seminar and AP Research assessments and on four additional AP Exams of their choosing will earn the AP Capstone Diploma™. This signifies their outstanding academic achievement and attainment of college-level academic and research skills. Students who earn scores of 3 or higher on both AP Seminar and AP Research assessments only (but not on four additional AP Exams) will earn the AP Seminar and Research Certificate™.

AVID (Advancement Via Individual Determination)
An advanced program for emergent scholars, AVID is a four-year, in-school academic support and college readiness system that prepares students for college eligibility and success. AVID targets students in the academic middle — B and C students — who have the desire to attend college and the willingness to work hard. Students who are capable of completing rigorous curriculum but are falling short of their potential are selected to participate in AVID after an application and interview process. AVID puts students on the college track with Honors and Advanced Placement courses as appropriate to students’ strengths. Formally trained tutors facilitate AVID students’ access to rigorous curriculum through twice-weekly tutoring sessions. The involvement of parents is a priority in AVID. Parents sign a contract agreeing to support all AVID academic requirements; encourage and support their children’s academic success; and attend AVID parent meetings. The AVID program is offered at North Hagerstown, Smithsburg, South Hagerstown and Williamsport High Schools.

Early College Program
The Early College Program is a partnership between Washington County Public Schools and Hagerstown Community College (HCC) that provides eligible students with the opportunity to earn college credits while still in high school. Early College Programs include STEMM Middle College, Upward Bound, Concurrent Enrollment, and Dual Credit.
International Baccalaureate Diploma Programme (Offered at North Hagerstown High School)
The International Baccalaureate Organization (IBO) authorizes North Hagerstown High School to offer highly motivated Washington County students International Baccalaureate Diploma Programme (IBDP) courses. The IBO recognizes North Hagerstown High School as an IB World School. IBO requires IB World Schools to provide students with a well-rounded preparation for post-secondary education. IB requires students to complete college level courses in six academic groups while also completing a Theory of Knowledge course, writing an Extended Essay and participating in Creative (the arts), Action (physical activity) and Service (community service) activities. These requirements ensure students are prepared for a post-secondary education by providing students with a freshman college experience during the students’ junior and senior years of high school. Students receive recognition from IBO for IB courses by completing the assessment process of an internal assessment and two or three external assessments. Washington County Public School pays the IB registration fee and half the cost of each IB exam. Students successfully completing all requirements may earn an IB diploma. For more information regarding the International Baccalaureate Diploma Programme, please contact the IB coordinator at North Hagerstown High School or the Washington County Public Schools’ Advanced Programs office. Information is also available on the International Baccalaureate Organization website at www.ibo.org.

International Baccalaureate Career-related Programme (IBCP) (Offered at North Hagerstown High School)
The International Baccalaureate Organization (IBO) recognizes North Hagerstown High School as an International Baccalaureate Career-related Programme candidate. To prepare students for the 21st century, the International Baccalaureate has developed the IB Career-related Programme, an academic qualification designed to support schools and colleges that offer career-related courses to their students. The newest of the four IB programs, the IBCP is offered in 228 schools worldwide. There are approximately 132 schools in the United States offering the IBCP. The IBCP provides the basis for effective collaboration in the workplace, additional training in a career-related field, as well as improved mobility and flexibility in one’s employment. The IBCP offers a learning and assessment program that promotes access to an IB education, school retention, responsibility for one’s own actions, skills development, reflection of life experiences and self-esteem through meaningful achievements. IBCP students complete a sequence of an accredited career-related course of study. IBCP students also complete at least two IBDP courses, either at the standard (SL) or higher level (HL), in the subject groups recommended by NHHS. These courses will be relevant to the student’s career-related studies, and the IBCP student must take the corresponding exams and score at least a 3. The IBCP takes place during Grades 11 and 12.

The IBCP Core requires the following:
1. Personal and Professional Skills (PPS) is a required interdisciplinary course intended to stimulate critical reflection. With an emphasis placed primarily within the context of work, PPS promotes the development of transferable skills such as communication; critical thinking; intercultural understanding; and personal development to improve skill sets to successfully operate in the 21st century. The Personal and Professional Skills course seeks to develop a coherent approach to learning that bridges the gap between practical and knowledge skills while promoting self-awareness and cross-cultural connections.
2. Service Learning (SL) is a fundamental part of the IBCP curriculum. Participation in service learning activities emphasizes service learning, service as a vehicle for learning that has academic value, reflects upon the career-related studies and relates to the Reflective Project. This involvement allows IBCP students to share their energies and talents while developing awareness, concern, and the ability to work cooperatively with others. The goal of educating the whole person and fostering a more compassionate citizenry comes alive in an immediate way when students reach beyond themselves.
3. IBCP candidates are required to undertake original research and produce a reflective work known as the Reflective Project (RP). This project offers the opportunity to investigate an ethical dilemma associated with the student’s career-related study and acquaints the student with the kind of independent research skills expected beyond high school.
4. The Language Development (LD) aspect allows students to expand their awareness of cultural diversity through another language. This component encourages the importance of developing knowledge and skills in a foreign language relevant to their background, context, and career-related study. With the help of their Language Development mentor, students will create an original language development portfolio in a format determined by NHHS.

Online Learning Opportunities
High schools may utilize online learning to expand the range of courses and educational opportunities for students. Several online Advanced Placement courses are offered when scheduling conflicts and limited teacher availability occur. Students are expected to be independent and highly motivated participants, communicating with the teacher and fellow students via email and other online learning methods. Eligible students are not guaranteed enrollment in any WCPS online course. Enrollment is based on course and teacher availability AND approval by appropriate WCPS personnel. Credit for online courses will only be granted for Maryland State Department of Education approved Maryland Virtual Learning Opportunities courses. Your school counselor will be able to discuss any potential enrollment requirements and consideration for these courses.

STEMM Middle College Program
WCPS students who are accepted to HCC following the successful completion of specific 9th and 10th grade courses may qualify to attend the STEMM (Science, Technology, Engineering, Math and Medical) Technical Middle College and earn postsecondary credits and credentials. This new program allows county high school students to finish their last two years of high school on the HCC campus, taking specific dual credit courses that apply toward a high school diploma and a college diploma or certificate. STEMM Middle College students have the opportunity to earn at least 30 college credits. For more information visit http://hagerstowncc.edu/admissions/middle-college.
Upward Bound (offered at Hancock Middle-Senior High School, North Hagerstown High, South Hagerstown High, and Williamsport High Schools)
A partnership between WCPS and Hagerstown Community College, the grant-funded TRiO Upward Bound program provided year-round college-prep. Upward Bound is designed to assist first-generation college bound high school students in the successful completion of secondary education by preparing them academically and socially for enrollment and completion of higher education. Participants are provided with rigorous and nurturing academic courses; tutoring services; college-preparatory workshops; academic, college, and financial aid advising; career exploration; leadership opportunities; and cultural enrichment. Upward Bound offers services to students through after-school programs and Saturday Academies during the school year, as well as a multi-week Summer Enrichment or Summer Bridge Programs. For more information visit http://www.hagerstowncc.edu/upwardbound.

Specialized Programs

Barbara Ingram School for the Arts
Grades: 9 - 12
University of Maryland Completer
The Barbara Ingram School for the Arts is a Washington County Public Schools academic and arts magnet school located in downtown Hagerstown. The school provides students with a rigorous college preparatory curriculum rooted in intense, pre-professional training in one of six arts areas: dance, instrumental music, literary arts, theatre, visual arts, and vocal music. Arts instruction takes place at the Barbara Ingram building on South Potomac Street, in the Arts and Entertainment district near The Maryland Theatre. Students take literary arts classes and all academic classes at the University System of Maryland building on Washington Street. Instruction is provided for all required courses with Advanced Placement and online learning options also available. Students are expected to participate in ensembles, large group practices, performances, and shows after the regular school day; therefore, the Barbara Ingram School for the Arts does not have interscholastic athletic teams. Students will, however, have the opportunity to participate in school clubs and organizations.

Washington County Technical High School
Grades: 11 and 12
Career Technology Education Completer with University of Maryland Completer Option
Washington County Technical High School is a comprehensive career technology and academic school for students in grades 11 and 12. Washington County Technical High School attracts 11th and 12th grade students from across the county to its award-winning specialized completer programs. The application process is highly-competitive with specific requirements for course completion by its students prior to entry. With the availability of several Advanced Placement courses offered alongside technical coursework, WCTHS offers rigorous programming to meet the demands of students seeking academic excellence in addition to technological training. WCTHS has 18 completer programs available to students.

• Academy of Biomedical Sciences PLTW
• Automotive Technology I and II
• Carpentry I and II
• Collision Repair I and II
• Computer Game Development and Animation I and II
• Computer Repair and Networking (Cisco Academy) I and II
• Cosmetology I and II
• Criminal Justice I and II
• Culinary Arts I and II
• Digital Communications I and II
• Early Childhood Professions I and II
• Electrical Construction I and II
• Fire and Rescue Academy
• Homeland Security Global Imaging and Communications Technology
• Academy of Health Professions
• Pre-Civil Engineering and Architecture Academy I and II PLTW
• Multimedia Graphic Design I and II
Academic Leadership Academy (ALA)  
South Hagerstown High School  
Grades 9-12  
University of Maryland Completer  
The Academic Leadership Academy, an academic magnet program based at South Hagerstown High School, provides students with ample opportunity to earn college credit while building leadership skills and demonstrating those skills through a project to better the community. Students take honors courses and a minimum of 6 Advanced Placement classes. ALA students attend summer academic workshops and leadership training, complete a Leadership Project, and are expected to assume leadership roles in the schools and community. ALA students will have the opportunity to attend the Maryland Leadership Workshop with other leaders from across the state. For more information on the Academic Leadership Program, please call South Hagerstown High School at 301-766-8369 and ask for the ALA Coordinator.

The Academy of Biomedical Sciences  
Washington County Technical High School  
Grades: 11 and 12  
Career Technology Education Completer  
The Project Lead the Way Biomedical Sciences program is a dynamic program using hands-on, real-world problems to engage and challenge students interested in math, science, and the human body. This program is appropriate for students interested in pursuing a career in biological sciences, emergency services, health care or medicine creating an exciting environment of biomedical techniques, anatomy and physiology, interventions to support life and treat disease as well as research. Additionally, students solve problems, participate as part of a team, lead teams, conduct research, investigate real-world problems, analyze data, and learn outside the classroom. Students enrolled in this academy must also be enrolled in college-preparatory mathematics and science courses. The Biomedical Sciences are not designed to replace the traditional science course, but are designed to enhance them and to focus on the concepts directly related to the field of Biomedical Sciences. This program is available at Washington County Technical High School.

This program requires enrollment at Washington County Technical High School (WCTH) during the 11th and 12th grades.

The Academy of Finance  
Williamsport High School  
Grades: 10, 11, and 12  
Career Technology Education Completer  
The Academy of Finance (AOF) prepares students for post-secondary education and careers through academic learning and hands-on work experiences within a theme-based, contextualized curriculum. Students are exposed to broad career opportunities in the financial services industry. The AOF is affiliated with the National Academy Foundation (NAF), an organization that sustains a national network of career academies.

Enrollment in the AOF is open to students from all county high schools; however, students will complete all 10th, 11th, and 12th grade classes at Williamsport High School. In 12th grade, students enroll in a business course at Hagerstown Community College. In the summer between 11th and 12th grade, students will participate in a paid internship in the financial industry.
The Academy of Health Professions
Washington County Technical High School
Grades: 11 and 12
Career Technology Education Completer
The Academy of Health Professions (AoHP) uses project and problem-based learning, clinical and internship experiences, and classroom and lab instruction to teach students about the field of healthcare. Students are introduced to healthcare knowledge and skills through curriculum developed by Stevenson University. There are opportunities for students to apply what they are learning to real-life healthcare situations by participating in a supervised clinical experience and will earn state and/or nationally recognized certifications.

The Academy of Science, Technology, Engineering and Mathematics
Williamsport High School
Grades: 11 and 12
Career Technology Education Completer
The Academy of Science, Technology, Engineering and Mathematics (STEM) based at Williamsport High School prepares students for post secondary education and careers in engineering, science applications, and mathematics as applied to engineering and manufacturing through challenging academic course work and hands-on experiences with the Project Lead the Way principals of civil engineering design, aerospace and biotechnical engineering, fabrication, and manufacturing processes. During the first two years, students will lay the groundwork for one of four pathways. At the end of their sophomore year, they will choose one of the four pathways to concentrate in. All four pathways have an engineering component, since it is believed that this is a great basis for choosing any college major and career in science, technology, engineering or math.

Academy of Teaching Professions
North Hagerstown High/South Hagerstown High
Grades: 11 and 12
Career Technology Education Completer
The mission of the Academy of Teaching Professions is to encourage a diverse group of students to enter the teaching professions by providing the support and foundation necessary for success as both students and teachers. In the Academy, the classroom is the context for learning to teach. The best way to learn how to teach is to observe and interact with experiences and enthusiastic teachers, and to talk with them about their profession. In the Academy courses, students learn to apply information, concepts, and theories to real life educational settings. The Academy curriculum is designed to prepare students for careers in education, either as teachers or paraprofessionals, and to expose them to the essentials of teaching by offering: 1) courses related to teaching, learning, and children; 2) field experience internships and tutoring opportunities; and 3) college credit bearing course work transferable to local colleges and universities. This Academy prepares students for an internship with a practitioner in secondary education, and an opportunity to complete the Parapro and the Praxis I exams.

AP Capstone™
Clear Spring High School
Grades: 9-12
University of Maryland Completer
AP Capstone™ is a new academic magnet program based at Clear Spring High School. AP Capstone includes two courses, designed with an interdisciplinary format, that promote critical and creative thinking, argumentation, and research skills: AP Seminar and AP Research. Both courses include performance tasks, assessments, and application of research methodology, which complement the other AP Courses that AP Capstone participants will take. AP Seminar and AP Research permit the in-depth pursuit of a topic of interest at the local, national or global levels. At least four AP courses will be taken in addition to AP Seminar and AP Research. By earning the AP Capstone Diploma, participants distinguish themselves to colleges and universities, as these students have actively practiced the real world skills necessary for college and career. For more information about AP Capstone™, please call Clear Spring High School at 301-766-8082 and ask for the AP Coordinator.
Barr Construction Institute
All High Schools
Grades: 11 and 12
Career Technology Education Completer
The Washington County Public Schools – Barr Construction Institute was developed to provide a means to train high school students in the construction trades of Plumbing and Heating, Ventilation, and Air Conditioning (HVAC). The institute is administered by the Associated Builders and Contractors, Inc., Cumberland Valley Chapter, at the Barr Construction Institute located on North Locust Street in Hagerstown. This program provides students with the opportunity to complete two levels of the NCCER Plumbing and/or HVAC curriculum / work hour requirements to transfer into the Apprenticeship program at the BCI after graduation from high school. Washington County Public Schools support students by paying the required tuition for Core, Level I and Level II courses and provides some limited equipment and materials for the program. Students will need to enroll in evening courses at BCI.

Environmental Agricultural Science Academy
Clear Spring High School
Grades: 9, 10, 11, and 12
Career Technology Education Completer
This academy prepares students for post-secondary education and careers through challenging academic and technical course work and internship opportunities. The Environmental Agricultural Science Academy combines technical, academic and work place skills in an integrated curriculum to prepare students for entering the work force or post-secondary education in the fields of environmental science and natural resources, plant or animal sciences. Students will take tests for specific industry certifications, where appropriate.

International Baccalaureate Diploma Programme (IBDP)
North Hagerstown High School
Grades: 11 and 12
University of Maryland Completer
The International Baccalaureate Diploma Programme, based at North Hagerstown High School, provides hardworking, motivated, organized, and creative students the opportunity to pursue a rigorous pre-university courses of study. The IBDP is a comprehensive two-year curriculum that begins in the 11th grade. Descriptions of the IB courses that will be offered can be found in each content section throughout this booklet. Students may receive college credit from participating universities by earning an IB diploma. Students receive recognition from IBO for IB courses by completing the assessment process of an internal assessment and two or three external assessments. Students successfully completing all requirements may earn an IB diploma. Washington County Public Schools pays half the cost of the exam. Other financial support may be available. Enrollment in the International Baccalaureate Diploma Programme is open to students from all county schools; however, students will complete all 9th through 12th grade classes at North Hagerstown High School. For more information on the IB Diploma Programme, please call North Hagerstown High School at 301-766-8238 and ask for the IB coordinator.
International Baccalaureate Career-related Program (IBCP)
North Hagerstown High School
Grades: 11 and 12
University of Maryland Completer
MSDE CTE Completer
The Career-related Programme is the most recent addition to the IB. Its key aim is to provide a choice of different pathways for students in Grades 11 and 12. Modern life places complex demands on graduates entering further/higher education or employment. An integral part of the Career-related Programme is enabling students to become self-confident, skilled and career-ready learners. To prepare students to succeed in a rapidly changing world, schools must not only equip them with the necessary skills and the learning dispositions, but also the ability to manage and influence change. The Career-related Programme helps students to:
• develop a range of broad work-related competencies and deepen their understanding in specific areas of knowledge through their Diploma Programme courses.
• develop flexible strategies for knowledge acquisition and enhancement in varied contexts
• prepare for effective participation in the changing world of work
• foster attitudes and habits of mind that allow them to become lifelong learners willing to consider new perspectives
• become involved in learning that develops their capacity and will to make a positive difference.

Fire and Rescue Academy
Washington County Technical High School
Grades: 11 and 12
Career Technology Education Completer
The Fire and Rescue Academy was developed to provide a means to train high school students in the art of fire fighting and emergency medical technology. The academy classes are conducted at the Public Service Academy and the City of Hagerstown Fire Department’s training center. This academy prepares students for post-secondary education and careers in the fire and rescue services or its allied professions. Upon completion of the two years of training, the student will be qualified to apply for National Certification at the Firefighter II level and eligible to obtain a National Certification as an Emergency Medical Technician-Basic. Students have the opportunity to earn 12-16 transcript credits through the University of Maryland.
Prerequisite: Participants must be a member in good standing of a Washington County Volunteer Fire and/or Rescue Department or a Mutual Aid Company and sixteen (16) years old at the beginning of 11th grade.

The Oracle Academy
South Hagerstown High School
Grades: 10, 11, 12
Career Technology Education Completer
The Oracle Academy teaches students to design and implement data base systems that support various business functions such as sales, human resources, operations and support. High school students receive a foundational database, programming, and professional skills curriculum, using a blended learning model that integrates Web-based training with face-to-face instruction, hands-on exercises, and assessments. The professionally designed student-centered curriculum is geared to meet the learning needs of high school students at a collegiate level. Teachers reinforce concepts through real world projects. Advanced students can prepare for the Oracle certification exam and other certification exams recognized in the workplace. Students will sit for various Oracle certification exams which are recognized in the workplace.

Pre-Civil Engineering and Architecture Academy
Washington County Technical High
Grades: 11 and 12
Career Technology Education Completer
The Academy prepares students for post-secondary education and careers through a sequence of courses that, when combined with college preparatory mathematics and science courses, introduces students to the scope, rigor, and discipline of engineering technology. The Pre-Civil Engineering and Architecture Academy might be for you if:
• You are interested in being with talented group of students in a special curriculum
• You’ve decided that you’d like to specialize in a particular course of study.
• Work and school are equally important to you.
• You like the idea of specialized instruction.
• You’re a hands-on type of person.
• You like the idea of college level courses during high school.
• Architecture and/or engineering sound interesting to you.

Required Courses:
At least 2 IBDP courses at standard or higher level with one as a 2-year course; corresponding course exams (minimum score of 3) must be taken; completion of career-related studies pathway; completion of the IBCP Core, which includes Personal and Professional Skills Course, Reflective Project, Language Development, and Service Learning.

Required Courses:
Firefighter I, Firefighter II, Rescue EMS

Required Courses:
Database Design, Data-base Programming I with SQL, Database Programming II with PL/SQL, and Data-base Programming III with PL/SQL

Required Courses:
College Preparatory Science and Mathematics concurrent with PLTW courses, Pre-Civil Engineering and Architecture I, Pre-Civil Engineering and Architecture II
Students are required to earn four (4) credits in English to meet the requirements to earn a high school diploma. Students are also encouraged to enhance their skills as readers and writers through participation in one or more English elective courses. All students must pass all applicable Maryland assessments.
## High School English Suggested Pathways

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Additional</th>
<th>AP Lang and/or AP Lit</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; English Credit</td>
<td>English 12 (A108)</td>
<td>Honors English 12 (A108H) AP Lang and/or AP Lit</td>
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<tr>
<td></td>
<td></td>
<td>AP Lang (A116AP) AP Lit (A115AP)</td>
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<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; English Credit</td>
<td>English 11 (A106)</td>
<td>Honors English 11 (A106H)</td>
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<td></td>
<td>AP Lit (A115AP) AP Lang (A116AP)</td>
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<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; English Credit</td>
<td>English 10 (A104)</td>
<td>Honors English 10 (A104H)</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; English Credit</td>
<td>English 9 (A102)</td>
<td>Honors English 9 (A102H)</td>
</tr>
</tbody>
</table>

**BELOW GRADE LEVEL PATHWAY**
Students with below grade level reading and writing skills. Previously or dually enrolled in reading intervention.

**ON GRADE LEVEL PATHWAY**
Students with on grade level reading and writing skills.

**HONORS/PRE-AP PATHWAY**
Students with on or above grade level reading and writing skills.

Students may change columns as a result of increased skill or of a desire to elect a more challenging course load.

▲ = Suggested pathway upon successful completion of course
ENGLISH 9
A102   Grade Level 9 1 English Credit
English 9 is a standard course of study that is aligned with the Maryland College and Career-Ready Standards. Students read works of fiction and literary non-fiction and participate in guided discussions to evaluate the texts for content, organization, and language. Research and writing activities focus on using the writing process with an emphasis on editing and revision. Integrated grammar and vocabulary study enhances students’ reading comprehension and communication skills.

HONORS ENGLISH 9
A102H  Grade Level 9 1 English Credit
Honors English 9 is a rigorous course of study that is aligned with the Maryland College and Career-Ready Standards. This course utilizes pre-AP strategies and is designed to prepare students for the rigors of the Advanced Placement English courses and exams. Students independently read challenging works of fiction and literary non-fiction and engage in the Shared Inquiry Method for close analysis of their reading. Research and writing activities focus on using the writing process with an emphasis on editing and revision. Integrated grammar and vocabulary study enhances students’ reading comprehension and communication skills. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students are expected to complete challenging assignments above grade-level, both in and out of class.

ENGLISH 10
A104   Grade Level 10 1 English Credit
English 10 is a standard course of study that is aligned with the Maryland College and Career-Ready Standards. Students analyze and evaluate the rhetoric of writers and apply these techniques in their own written argumentation, including on-demand responses and research-based papers. Students develop their communication skills via a variety of discussions, compositions, research projects, debates, and oral presentations, primarily in response to the texts they read. Integrated grammar and vocabulary study enhance students’ reading comprehension and communication skills. Students must pass the MCAP ELA/Literacy 10 Assessment during this course to meet graduation requirements.
Prerequisite: Successful completion of English 9

HONORS ENGLISH 10
A104H  Grade Level 10 1 English Credit
Honors English 10 is a rigorous course of study aligned with the Maryland College and Career-Ready Standards. This course utilizes pre-AP strategies and is designed to prepare students for participation in Advanced Placement English courses. Students study a variety of literary genres (such as speeches, letters, documents, fiction, poetry, essays, etc.). Students analyze and evaluate the rhetoric of writers and apply these techniques in their own written argumentation, including on-demand responses and research-based papers. Integrated grammar and vocabulary study enhances students’ reading comprehension and communication skills. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students are expected to complete challenging assignments above grade-level, both in and out of class. Students must pass the MCAP ELA/Literacy 10 Assessment during this course to meet graduation requirements.
Prerequisite: Successful completion of Honors English 9/English 9

ENGLISH 11
A106   Grade Level 11 1 English Credit
English 11 is a standard course of study that is aligned with the Maryland College and Career-Ready Standards. The course engages students in individual and small group investigations of ideas found in literary texts from the United States and of the connections among these American texts and literary texts from other countries. Students apply their understanding of archetypes and universal themes as they engage in close reading, text-based discussion, and authentic writing to construct meaning relevant to life in modern times. Students must pass the MCAP ELA/Literacy 11 Assessment as one of the methods to be determined College and Career Ready.
Prerequisite: Successful completion of English 10

HONORS ENGLISH 11
A106H  Grade Level 11 1 English Credit
Honors English 11 is a rigorous course of study that is aligned with the Maryland College and Career-Ready Standards. This course utilizes pre-Advanced Placement strategies and is designed to prepare students for participation in Advanced Placement English coursework. The course engages students in individual and small group investigations of ideas found in literary texts from the United States and of the connections among these American texts and literary texts from other countries. Students apply their understanding of archetypes and universal themes as they engage in close reading, text-based discussion, and authentic writing to construct meaning relevant to life in modern times. Students in Honors classes are expected to complete challenging assignments above grade-level, both in and out of class. Students must pass the MCAP ELA/Literacy 11 Assessment as one of the methods to be determined College and Career Ready.
Prerequisite: Successful completion of Honors English 10/English 10
ENGLISH 12
A108 Grade Level 12 1 English Credit
English 12 is a standard course of study that is aligned with the Maryland College and Career-Ready Standards. The course prepares students for the various communication demands of our global economy and focuses on the reading, writing, speaking, listening, and research skills necessary to navigate the global workplace successfully. Students develop their problem-solving and decision-making skills as they learn to evaluate sources of information and effectively use presentation tools to communicate their ideas.
Prerequisite: Successful completion of English 11

HONORS ENGLISH 12
A108H Grade Level 12 1 English Credit
Honors English 12 is a rigorous course of study that is aligned with the Maryland College and Career-Ready Standards. This course utilizes pre-Advanced Placement strategies and is designed to prepare students for the rigors of a university freshman English course. This course engages students in the study of literary texts that speak to the issues and dilemmas of our time. Students engage in close reading, text-based discussion, and authentic writing to develop an understanding of the world in which they live so that they can enter college prepared to participate effectively in finding solutions to the challenges we face.
Prerequisite: Successful completion of Honors English 11/English 11

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION
A115AP Grade Level 11, 12 1 AP Credit
Advanced Placement English Literature and Composition is a rigorous course of study that reflects college-level requirements and expectations established by the College Board. This course is designed to provide students with the opportunity to earn college credit. Students read for critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work’s structure, style, and themes as well as various literary elements. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit from the sixteenth to the twenty-first century. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement English Literature and Composition Exam.
Prerequisite: Honors English 10/English 10

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION
A116AP Grade Level 11, 12 1 AP Credit
Advanced Placement English Language and Composition is a rigorous course of study that reflects college-level requirements and expectations established by the College Board. This course is designed to provide students with the opportunity to earn college credit. This AP course engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Instructional materials and strategies for learning are differentiated for students to meet the challenges of college level work with significant reading and writing outside of class. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement English Language and Composition Exam.
Prerequisite: Honors English 10/English 10

ENGLISH TRANSITION
A112SM Grade Level 12 1 Elective Credit
The English Transition Course is a semester long English course designed to strengthen skills developed in English 11. The course infuses College and Career Readiness Standards in the curriculum to deepen student understanding and proficiency in literary analysis and authentic writing. Differentiated support will be provided to meet specific needs of individual students. Students will retake the English 11 MCAP exam or other College and Career Readiness (CCR) exam during this course in order to meet the College and Career Readiness requirement for English.
Prerequisite: Must be a senior and have earned an English 11 credit but have not passed the English 10 MCAP exam.

THE NOVEL: A CULTURAL LENS (HONORS)
A110H Grade Level 11, 12 1 Elective Credit
The Novel: A Cultural Lens is designed to provide junior and senior level students with an Honors level English elective that will both satisfy their academic curiosity and prepares them for the reading that is required in college English classes. In this class, students study the evolution of the novel from its 18th century roots to the present. The course also explores the various literary genres depicted through novels. Students study the themes, characterization, plots, and styles that reflect the time and society during which they were created.

JOURNALISM I
A122 Grade Level 10, 11 1 Elective Credit
Journalism I focuses on developing skills necessary to produce a news publication. Instructional materials and teaching strategies train students in news gathering, news writing, and overall newspaper production. Technology and media used in professional journalism are highlighted. Students enrolled in this course will participate in the production of a print or electronic high school newspaper.
JOURNALISM II
A124   Grade Level 11, 12  1 Elective Credit
Journalism II reinforces the content and strategies presented in Journalism I. Students are introduced to newspaper management and administration. Students enrolled in this course are expected to serve in a variety of administrative roles and are responsible for the production of the school newspaper.
Prerequisite: Journalism I

CREATIVE WRITING
A130   Grade Level 11, 12  1 Elective Credit
Creative Writing is a one-semester course that expands writing skills in several genres, including non-fiction, fiction, drama, and poetry. After working through the full writing process, students create a portfolio of writings representative of these genres with the option to concentrate on one genre. Possible extension learning experiences may include personal field trips and a class literary magazine.
Prerequisite: English 10

PUBLIC SPEAKING AND FORENSICS
A152   Grade Level 10, 11, 12  1 Elective Credit
The Public Speaking and Forensics course studies the theory of public address and gives students practice in speaking to audiences both in and out of the classroom. Mechanics of speech preparation and organization and the delivery of short speeches are included. The course prepares students to make informative presentations with the implementation of visual aids. Students prepare and present speeches that may be persuasive, demonstrative, extemporaneous, responsive (to a contemporary issue), or particular to an occasion. Students also demonstrate appropriate tone and emotion in the reading of prose, poetry, and essay. This course is available at some schools for dual enrollment credit.

IB ENGLISH (PART 1) (HL)
A106IB   Grade 11  1 IB Credit
IB English (Part 1), offered only at North Hagerstown High School, is the first course in the IB English sequence in preparation for the IB English Higher Level exam. This course provides students with a broad literary and cultural experience that encourages the thoughtful appreciation of both global diversity and literature as an art. Through literature study, IB English also examines and explores the static and dynamic aspects of the human experience throughout time. The course requires students to use knowledge from other disciplines to enhance appreciation and understanding of humanity. Students develop confidence and skill in both written and oral expression through a series of assignments that become progressively more independent of teacher direction.
Prerequisite: Honors at NHHS

IB ENGLISH (PART 1) (SL)
A107 IB   Grade 11  1 IB Credit
IB English SL (Part 1), offered only at North Hagerstown High School, is the first course in the IB English sequence in preparation for the IB English Standard Level exam. This course is offered to students participating in the IB Career-related Programme. Students completing this course will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have effectively developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes at significant length. The course will enable them to succeed in a wide range of university courses, particularly in literature but also in subjects such as philosophy, law and language. Students develop confidence and skill in both written and oral expression through a series of assignments that become progressively more independent of teacher direction.

IB ENGLISH (PART 2) (HL)
A108IB   Grade 12  1 IB Credit
IB English (Part 2), offered only at North Hagerstown High School, is the concluding course in the IB English sequence in final preparation for the IB English Higher Level exam. This course continues the thoughtful appreciation of both global diversity and literature as an art, providing a broad literary and cultural experience. IB English also examines and explores the static and dynamic aspects of the human experience throughout time as related through literature. The course requires students to use knowledge from other disciplines to enhance appreciation and understanding of humanity. Students exhibit confidence and skill in both written and oral expression through a series of independent assignments. Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: IB English (Part 1) (HL)
IB ENGLISH (PART 2) (SL)
A109 IB   Grade 12

IB English SL (Part 2), offered only at North Hagerstown High School, is the concluding course in the IB English sequence in final preparation for the IB English Standard Level exam. This course is offered to students participating in the IB Career-related Programme. This course continues the thoughtful appreciation of both global diversity and literature as an art; students will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have effectively developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes at significant length. The course will enable them to succeed in a wide range of university courses, particularly in literature but also in subjects such as philosophy, law and language. Students develop confidence and skill in both written and oral expression through a series of assignments that become progressively more independent of teacher direction, as well as both internal and external assessments as required by the IBO. Students must complete all assessment requirements to receive IBO recognition for completing this course.

Prerequisite: IB English (Part 1) (SL)
The purposes of English Learner (EL) courses are for students to become interculturally competent and to acquire academic English skills in speaking, listening, reading, and writing. The goal of EL instruction is to build a foundation of academic language skills that allow students to make meaning of content and ultimately transfer those skills in their second language. Instruction aligns with both WIDA English Language Development Standards and Maryland College and Career-Ready Standards.

Although several EL courses are described below, their availability depends on student enrollment and staffing at the individual high schools.
NEWCOMER EL
A180  Grade Level 9, 10, 11, 12  1 World Language Credit
This course is designed for students who are new to the country with limited English proficiency and is aligned to the WIDA English Language Development Standards. Students focus on developing social and academic language in listening, speaking, reading, and writing while targeting academic vocabulary and academic skills.
Prerequisite: Level 1 Proficiency Level

BEGINNER EL
A181  Grade Level 9, 10, 11, 12  1 World Language Credit
This course aligns to the WIDA English Language Development Standards and the Maryland College and Career Ready Standards. Students continue to develop social and academic language while building speaking, listening, reading, and writing skills. The course is for beginning level EL students (Level 2) and/or those recommended by the EL teacher and the counselor.
Prerequisite: Level 2 Proficiency Level

INTERMEDIATE EL
A182  Grade Level 9, 10, 11, 12  1 World Language Credit
This course aligns to both the WIDA English Language Development Standards and the Maryland College and Career Ready English Standards. Students focus on developing listening, speaking, reading, and writing with an emphasis on more complex text, reading comprehension, and academic writing. The course is for intermediate level EL students (Level 3) and/or those recommended by the EL teacher and the counselor.
Prerequisite: Level 3 Proficiency Level

ADVANCED EL
A184  Grade Level 9, 10, 11, 12  1 World Language Credit
This course aligns to both the WIDA English Language Development Standards and the Maryland College and Career Ready English Standards. Students develop fluency in reading critically and in crafting well written compositions including the use of descriptive, narrative, and argumentative techniques. Students expand and bridge critical reading, writing, and thinking skills. Complex informational texts are used to teach literacy skills in English that transfer to academic content areas to ensure more independent success and work toward career and college readiness.
Prerequisite: Level 4 Proficiency Level

ACCELERATED EL
A186  Grade Level 9, 10, 11, 12  1 World Language Credit
In this course, EL students develop academic and communication skills necessary for success in all content areas. This course reinforces English, math, social studies and/or science curricula and provides state assessment support while aligning with WIDA English Language Development Standards. Students are enrolled upon recommendation of the EL instructor and the school counselor.
Social Studies Course Descriptions

Students must take the following three courses to meet the Maryland requirements for graduation: United States Studies II; Local, State and National Government; and World History. Students are also strongly encouraged to take elective social studies courses. Students must pass the Government HSA.
### Washington County Public Schools

**Suggested Social Studies Course Sequence**

**Electives for 11th and 12th grade:**
- Sociology (A217) or Honors Sociology (A217H)
- Psychology (A215), Honors Psychology (A215H) or AP Psychology (A284AP)
  - AP World History, (A282AP)
  - AP Human Geography (A293AP)
  - Honors U.S. Civil War (A233H)
- Honors U.S. Historical Research (A234H)
  - AP U.S. History, (A288AP)
  - Honors Philosophy (A292H)
  - Honors Economics (A230H)
  - AP Macroeconomics (A286AP)
  - AP Microeconomics (A287AP)
- AP Comparative Government and Politics, (A209AP)
  - AP Government and Politics, (A279AP)
  - AP European History (A283AP)

**11th grade recommendations:**
- World History (A208) or
  - Honors World History (208H) or
  - AP World History (A280AP)

**10th grade recommendations:**
- Local, State and National Government (A206) or
  - Honors Local, State and National Government (A206H) or
  - AP Government (A279AP)

**9th grade recommendations:**
- United States Studies II (A204) or
  - Honors United States Studies II (A204H)

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1. Successful completion of three social studies courses is required for high school graduation in Maryland.
2. All students must complete U.S. Studies II; Local, State and National Government; and World History.
3. All students must pass the government HSA.
4. Students interested in taking multiple AP social studies courses are encouraged to schedule more than one social studies course each year.
UNITED STATES STUDIES II
A204H Grade Level 9 1 Social Studies Credit
Honors United States Studies II students study the modern history of the United States since the end of the nineteenth century including the growth of American economic and political power and its emergence as a world power. Additional topics of study include the Great Depression, world wars, civil rights and social reform and America’s response to the changing world at the end of the twentieth century. Students use primary source documents to examine political, economic, social, cultural and geographic perspectives. They study significant events, critical movements and people of various backgrounds that led to the building of this nation and its role as a world power.

LOCAL, STATE, AND NATIONAL GOVERNMENT
A206 Grade Level 10 1 Social Studies Credit
Local, State, and National Government is a required course in which students study the organization and operation of local, state, and national government with an emphasis on the forms and foundations of the American political system. The process of public policy making with an emphasis on economics, foreign affairs and civil rights issues are explored. The function of political parties, rights and responsibilities of all American citizens, political behavior and government decision making are examined through political, historic, geographic and economic perspectives. At the end of the course students must pass the Government HSA in order to meet the requirements for high school graduation.
Prerequisite: U.S. Studies II

HONORS UNITED STATES STUDIES II
A204H Grade Level 9 1 Social Studies Credit
Honors United States Studies II students study the modern history of the United States since the end of the nineteenth century including the growth of American economic and political power and its emergence as a world power. Additional topics of study include the Great Depression, world wars, civil rights and social reform and America’s response to the changing world at the end of the twentieth century. Students use primary source documents to examine political, economic, social, cultural and geographic perspectives. They study significant events, critical movements and people of various backgrounds that led to the building of this nation and its role as a world power. The honors level provides expectations and opportunities for students to work independently, at an accelerated pace, to engage in more rigorous and complex content and to develop projects and products that reflect that level of understanding. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

HONORS LOCAL, STATE, AND NATIONAL GOVERNMENT
A206H Grade Level 10 1 Social Studies Credit
Local, State, and National Government is a required course in which students study the organization and operation of local, state, and national government with an emphasis on the forms and foundations of the American political system. The process of public policy making with an emphasis on economics, foreign affairs and civil rights issues are explored. The function of political parties, rights and responsibilities of all American citizens, political behavior and government decision making are examined through political, historic, geographic and economic perspectives. The honors level provides expectations and opportunities for students to work independently, at an accelerated pace, to engage in more rigorous and complex content and to develop projects and products that reflect that level of understanding. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class. At the end of the course students must pass the Government HSA in order to meet the requirements for high school graduation.
Prerequisite: U.S. Studies II

WORLD HISTORY
A208 Grade Level 11, 12 1 Social Studies Credit
Modern World History is a required course in which students study the history of major human civilizations with emphasis on the Middle East, Africa, Asia, Europe and the Americas. The focus is on the development of these civilizations from 1500 to the present. Students study people and societies from historical, cultural, geographic, political and economic perspectives in order to gain insight into the human experience of different cultural groups in various settings and at different times in history.
Prerequisite: Local, State, and National Government

HONORS WORLD HISTORY
A208H Grade Level 11, 12 1 Social Studies Credit
Honors World History students study the history of major human civilizations with emphasis on the Middle East, Africa, Asia, Europe and the Americas. The focus is on the development of these civilizations from 1500 to the present. Students study people and societies from historical, cultural, geographic, political and economic perspectives in order to gain insight into the human experience of different cultural groups in various settings and at different times in history. The honors level provides expectations and opportunities for students to work independently, at an accelerated pace, to engage in more rigorous and complex content, and to develop projects and products that reflect that level of understanding. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Local, State, and National Government
This course will enable students to participate in We the People, National History Day, Entrepreneur Competition, Project Citizen, Choices, Mock Trial, and/or others.
APPRENTICESHIP MARYLAND PROGRAM
A1045 Grade Level 11, 12 Up to 4 Credits
The work-based learning apprenticeship experience takes place at the work-site and must be a paid experience (at least minimum wage) with a minimum of 450 hours. This experience is guided by a formal agreement provided by the school system and a student work. 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 Apprenticeship experience focuses on the student's interests in manufacturing and STEM-related pathways documented through various types of career-related assessments and also based on Maryland's career clusters/pathways and employer demand. Students are required to have CTE Concentrator completion or one year work related instruction, evaluated as needed by CTE office, prior to graduation.

AP COMPARATIVE GOVERNMENT AND POLITICS
A209AP Grade Level 10, 11, 12 1 AP Credit
Advanced Placement Comparative Government and Politics students will examine the processes and outcome of politics in diverse nations. The course allows students to compare various political systems for the purpose of analyzing available institutional alternatives, explaining differences in processes and policy outcomes, and showing the importance of global political and economic changes. The course uses comparison to look at world wide problems and global economic changes and to examine how governments solve their problems. In addition to covering large concepts of how to organize interpret political ideas, the course will specifically compare the government of specific countries. The course uses six nations to facilitate student comparison of political systems: China, Great Britain, Mexico, Nigeria, and Russia. Students are expected to take the Advanced Placement Comparative Government and Politics exam. The course will only be offered at Boonsboro High School.

ADVANCED PLACEMENT GOVERNMENT AND POLITICS
A279AP Grade Level 10, 11, 12 1 AP Credit
Advanced Placement Government and Politics students develop an analytical perspective on government and politics in the United States. Study includes general concepts used to interpret U.S. politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, benefits, and ideas that constitute U.S. Politics. Contents of the course include constitutional underpinnings of the U.S. government and government institutions, political beliefs and behaviors, and political parties. Interest groups, the effect of mass media, public policy, civil rights and civil liberties are also studied. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Government and Politics exam. Students in AP Government are required to participate in the We the People competition or complete three shorter term research projects that reflect the CCSS.
Prerequisite: U.S. Studies II, completion of or enrolled in Local, State and National Government, or by department/administration recommendation.

ADVANCED PLACEMENT WORLD HISTORY
A280AP Grade Level 11, 12 1 AP Credit
Advanced Placement World History examines history from a global perspective. The course is designed as a survey of the time period from 8000 B.C.E. - beginning of agriculture and early societies - to the present. The curriculum, although necessarily very broad in scope, is built around six themes: patterns of interaction, continuity and change, impact of technology and demography, states and governments, cultural and intellectual development, and social structure. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement World History exam. Students in AP World History are required to participate in National History Day or to complete three shorter term research projects that reflect the CCSS.
Prerequisite: U.S. Studies II completion of or enrollment in Local State and National Government

ADVANCED PLACEMENT EUROPEAN HISTORY
A283AP Grade Level 11, 12 1 AP Credit
Advanced Placement European History examines European history from the end of the Middle Ages to the recent past. Students study major events and trends in the cultural, intellectual, political, social and economic history of Europe. This course requires college-level effort in research skills, seminar type discussions and outside preparation. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement European History exam. Students in AP European History are required to participate in National History Day or to complete three shorter term research projects that reflect the CCSS.
Prerequisite: World History

ADVANCED PLACEMENT PSYCHOLOGY
A284AP Grade Level 11, 12 1 AP Credit
Advanced Placement Psychology is designed to introduce students to a systematic study of human behavior and mental processes. The course content includes the various approaches to psychology, types of research, biological bases of behavior, sensation and perception, learning, cognition, human development, motivation and emotion, personality theory, individual differences, social psychology, and mental disorders and therapy. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Psychology exam.
Prerequisite: Local, State, and National Government
ADVANCED PLACEMENT MACROECONOMICS
A286AP  Grade Level 11, 12  1 AP Credit
Advanced Placement Macroeconomics is an introductory college level course that provides an understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price determination. Students also examine economic performance measures, economic growth and international economics. Pending requests, this course may be offered online. Students enrolling in this course are expected to be independent and motivated learners. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Macroeconomics exam. 
Prerequisite: Government

ADVANCED PLACEMENT MICROECONOMICS
A287AP  Grade Level 11, 12  1 AP Credit
Advance Placement Microeconomics is an introductory college level course that provides an understanding of the principles of economics that apply to individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Pending requests, this course may be offered online. Students enrolling in this course are expected to be independent and motivated learners. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Microeconomics exam. 
Prerequisite: Government

ADVANCED PLACEMENT UNITED STATES HISTORY
A288AP  Grade Level 11, 12  1 AP Credit
Advanced Placement United States History provides students with the analytic skills and factual knowledge necessary to deal with the problems and materials in American history from colonial times to the present. Students learn to assess historical materials-their relevance to a given interpretive problem, their reliability, and their importance- and to weigh the evidence and interpretations presented in historical scholarship. This course requires college-level effort in research skills, seminar type discussions, and outside preparation. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement United States History exam. Students in AP US History are required to participate in National History Day competition or to complete three shorter term research projects that reflect the CCSS. 
Prerequisite: U.S. Studies II; Local, State, and National Government

HONORS PHILOSOPHY
A292H  Grade Level 11, 12  1 Elective Credit
Philosophy is often defined as the love of wisdom or systematic search for truth. In this general introduction to the subject, students study the history of ideas and explore the contributions of major philosophers. Students examine fundamental questions about human knowledge, the nature of reality, individual and social values, and ethics. Students increase their capacity to think critically as they learn to identify basic assumptions, formulate sound arguments, recognize faulty reasoning, and improve their decision-making skills. Course content includes major schools of philosophical thinking, the relationship of philosophy to science and art, philosophical approaches to contemporary issues, and philosophy as a tool for understanding and personal growth. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

ADVANCED PLACEMENT HUMAN GEOGRAPHY
A293AP  Grade Level 10, 11, 12  1 AP Credit
Advanced Placement Human Geography students develop an awareness of human social organization and its environmental consequences. Students systematically explore the patterns and processes that have shaped human understanding, use, and alteration of the Earth’s surfaces. They also learn about the methods and tools geographers employ in their science and practice. Specifically, AP Geography students study the perspective of geography, human population, cultural patterns, modern political organization, agriculture and land use, industrialization and economic development, and cities and urban land use. Students develop skills in map and spatial data interpretation, evaluation of regionalization, and analysis of changing interactions, and interpretation of scale and relationships. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Human Geography exam. 
Prerequisite: U.S. Studies II

ADVANCED RESEARCH SEMINAR
A299  Grade Level 11, 12  1 Accelerated Credit
This seminar provides students the opportunity to extend their understanding and application of prior learning through an integrated research or service learning project. Students will be expected to use high level reading, writing, research and communication skills to identify and develop a research question; structure and carry out the research; summarize information and data; and create a final research product. Students will work under the direction of an appropriate teacher mentor. All students in this seminar will be expected to present their outcomes in a public forum.
IB PSYCHOLOGY (SL)
A284IB Grade Level 11, 12 1 IB Credit
IB Psychology is a Group 3 standard level elective course that may be taken to fulfill the Group 6 requirement for the IB Diploma at North Hagerstown High School. Psychology examines human and non-human experiences in terms of behavior and mental processes. IB Psychology students explore three approaches - the biological, cognitive, and learning perspectives - to understanding individual human behavior and experience. Students learn the context, theoretical framework, methodologies, and applications of each of the perspectives. Students will review classical psychological studies and explore findings from recent research in the topic areas of human development, learning and memory, motivation, personality, adjustment, health psychology, and behavioral disorder and mental illness. Students will explore Social Psychology as the required IB option area. Students will conduct an experimental study as the requirement for IB internal assessment. Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: Honors Local, State, and National Government or AP Government and Politics

IB WORLD HISTORY (PART 1) (HL)
A290IB Grade Level 11 1 IB Credit
IB World History (Part 1) is the first course in the IB World History sequence preparing students to take the IB History Higher Level exam as a senior. This course gives students the opportunity to examine the impact of past events on their future and develop a lifelong affinity for the study of history. The course integrates international perspectives to give students an in-depth understanding of how current global issues developed. Students learn to become their own historians making comparisons and contrasts between cultures, political systems, societies, religions, and economies, as well as assessing the impact of change in society over time. Central to this approach of studying history is the study of the methodologies used by historians to evaluate the reliability and validity of sources of information.
Prerequisite: Honors Local, State, and National Government or AP Government and Politics

IB WORLD HISTORY (PART 2) (HL)
A291IB Grade Level 12 1 IB Credit
IB World History (Part 2) is the concluding course in the IB World History sequence preparing students to take the IB History Higher Level exam as a senior. This course gives students the opportunity to examine the impact of past events on their future and develop a lifelong affinity for the study of history. The course integrates international perspectives to give students an in-depth understanding of how current global issues developed. Students learn to become their own historians making comparisons and contrasts between cultures, political systems, societies, religions, and economies, as well as assessing the impact of change in society over time. Central to this approach of studying history is the study of the methodologies used by historians to evaluate the reliability and validity of sources of information. Students must complete all assessment requirements to receive IBO recognition for completing this course. For students enrolled in the IB Diploma Program IB World History (Part 2) will fulfill the MSDE requirement for World History.
Prerequisite: IB World History (Part 1); Counts toward the required World History course

IB PHILOSOPHY SL
A292IB Grade Level 11, 12 1 IB Credit
IB Philosophy is a Group 3 standard level elective course that may be taken to fulfill the Group 6 requirement for the IB Diploma at North Hagerstown High School. Philosophy is a systematic critical inquiry into profound, fascinating and challenging questions, such as the following: What is it to be human? Do we have free will? What do we mean when we say something is right or wrong? The emphasis of this philosophy course is on “doing philosophy”, that is, on actively engaging students in philosophical activity. The course is focused on stimulating students’ intellectual curiosity and encouraging them to examine both their own perspectives and those of others. Philosophical topics within the course include the compulsory topic of “Being Human” and at least one of the following optional themes: aesthetics, epistemology, ethics, philosophy and contemporary society, philosophy of religion, philosophy of science, and political philosophy. Students will complete the required internal assessment and take the IB Philosophy Standard Level examination at the end of the course. The Standard Level examination consists of two papers. Paper One contains two sections: the first on the core theme and the second on one optional area. Paper Two consists of one section based on a prescribed text.
Prerequisite: Honors Local, State, and National Government or AP Government and Politics

IB PHILOSOPHY HL
A293IB Grade Level 12 1 IB Credit
IB Philosophy is a Group 3 standard level elective course that may be taken to fulfill the Group 6 requirement for the IB Diploma at North Hagerstown High School. Philosophy is a systematic critical inquiry into profound, fascinating and challenging questions. The course is focused on stimulating students’ intellectual curiosity and encouraging them to examine both their own perspectives and those of others. HL students engage in a deeper exploration of the nature of philosophy itself. Philosophical topics within the course include the compulsory topic of “Being Human” and at least two of the following optional themes: aesthetics, epistemology, ethics, philosophy and contemporary society, philosophy of religion, philosophy of science, and political philosophy. Students will complete the required internal assessment and take the IB Philosophy Higher Level examination at the end of the course. The Standard Level examination consists of three papers. Paper One contains two sections: the first on the core theme and the second on two optional areas. Paper Two consists of one section based on a prescribed text. Paper Three is an analysis of an unseen philosophical text.
Prerequisite: Honors Local, State, and National Government or AP Government and Politics
IB Core is the central component of the International Baccalaureate Diploma Programme (IBDP) at North Hagerstown High School. As a two-year survey course, IB Core includes IBO core requirements for the IBDP Programme of Creativity, Action, and Service (CAS), Extended Essay, and ISO's Theory of Knowledge (TOK) course. CAS requires students to actively participate in their local, regional, and global societies by being involved in the arts, physical activity and community service. Students create presentations that demonstrate their planning, involvement and reflection of their CAS experiences. Extended Essay requires students to write independent research projects and submit them to be critiqued by IBO-recognized experts in the students' fields of research. TOK is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. Students are to demonstrate their understanding of knowledge at work in the real world through internal assessment projects and external assessment essays.

Prerequisite: Candidate for IB Diploma at North Hagerstown High School and Introduction to IBDP Core

Introduction to IBDP Core

IB Core is the central component of the International Baccalaureate Diploma Programme (IBDP) at North Hagerstown High School. Introduction to IB Core is a course that allows students to investigate the requirements of Creativity, Action, and Service (CAS), Extended Essay (EE), and Theory of Knowledge (TOK). Students examine various presentation approaches for TOK and CAS projects. The course provides detailed information regarding TOK knowledge questions, shared knowledge, personal knowledge, Areas of Knowledge and the Ways of Knowing. Students explore various subject areas while narrowing their choices in developing an extended essay research question. Students are to demonstrate their understanding of knowledge at work in the real world through a practice TOK internal assessment projects and external assessment essay.

Prerequisite: Candidate for IB Diploma at North Hagerstown High School
Mathematics Course Descriptions

Students are required to earn four (4) credits of mathematics including one credit in Algebra and one credit in Geometry. Each student shall enroll in a mathematics course in each year of high school. To earn a University System of Maryland completer, students need to earn a credit in Algebra II and take a math course of Algebra II or higher their senior year. All students must pass all applicable Maryland assessments.
Students entering high school will be placed according to the most recent course taken and the College and Career-Ready requirements.
ALGEBRA I
A312 Grade Level 9 1 Algebra Mathematics Credit
The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. Because it is built on the middle grades standards, this is a more ambitious version of Algebra I than has generally been offered. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course, and together with the content experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students will take the Algebra I MCAP assessments during this course.

INTERMEDIATE ALGEBRA
A312BC Grade Level 10 1 Mathematics Credit
Intermediate Algebra revisits standards from Algebra I and students will complete a Bridge Plan for academic validation in preparation for the Algebra I MCAP assessment during this course. Students also deepen understanding of Algebra standards by exploring concepts studied in Algebra II. Students enrolled in this course have passed Algebra I but need to meet MCAP Assessment requirement for graduation.

HONORS ALGEBRA I
A312H Grade Level 9 1 Algebra Mathematics Credit
The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. Because it is built on the middle grades standards, this is a more ambitious version of Algebra I than has generally been offered. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. Honors algebra is more rigorous than algebra because additional standards are integrated into the course. The mathematical practices standards apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students will take the Algebra I MCAP assessment during this course.

GEOMETRY
A322 Grade Level 10, 11 1 Geometry Mathematics Credit
The fundamental purpose of the course in Geometry is to formalize and extend students’ geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. The Mathematical Practice Standards apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. The critical areas are organized into five units.

HONORS GEOMETRY
A322H Grade Level 9, 10 1 Geometry Mathematics Credit
The fundamental purpose of the course in Geometry is to formalize and extend students’ geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. Honors Geometry is more rigorous than Geometry because additional standards are integrated into the course. The Mathematical Practice Standards apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. The critical areas are organized into five units.

ALGEBRA IIA
A332AC Grade Level 11 1 Mathematics Credit
Algebra IIA is paired with Algebra IIB. The two courses comprise all of the standards for Algebra II. Algebra IIA includes review of standards from CC Algebra I. Students will benefit from additional time to process. Students will not take the Algebra II MCAP during this course.

Prerequisite: Earned an Algebra I credit

HONORS ALGEBRA II
A332BC Grade Level 11, 12 1 Algebra II Mathematics Credit
Algebra IIB provides some review of standards from Algebra IIA and the remaining standards in the Algebra II curriculum. Students will take the Algebra II MCAP assessment during this course for USMD Completer requirements.

Prerequisite: Earned an Algebra IIA credit
**ALGEBRA II**

A332  Grade Level 11, 12  
1 Algebra II Mathematics Credit

Algebra II is designed for 11th or 12th grade students who successfully completed Geometry. This course prepares students for the first college level mathematics course. Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. The Mathematical Practice Standards apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students will take the Algebra II MCAP assessments during this course.

**Prerequisite:** Earned an Algebra I credit and Geometry credit

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**HONORS ALGEBRA II**

A332H  Grade Level 10, 11, 12  
1 Algebra II Mathematics Credit

Honors Algebra II prepares students for advanced work in science and mathematics. It is the next course in the honors sequence for students who have successfully completed Honors Geometry. Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Honors Algebra II is more rigorous than Algebra II because additional standards are integrated into the course. The Mathematical Practice Standards apply throughout each course, and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Students will take the Algebra II MCAP assessments during this course.

**Prerequisite:** Earned an Algebra I credit and a Geometry credit

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**INTRODUCTION TO STATISTICS**

A336   Grade Level 11, 12  
1 Mathematics Credit

Introduction to Statistics, a course designed for 11th or 12th grade students who successfully completed Algebra II, develops a basic understanding of statistical analysis. Topics of study include: Describing, exploring and comparing data, Probability, Distributions, Hypothesis Testing, Correlation and Regression. Technology investigations activities, real-world applications and multi-disciplinary connections will be balanced between computation, decision making and the conceptual understanding of Statistics.

**Prerequisite:** Earned an Algebra II credit

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**HONORS PRECALCULUS/TRIGONOMETRY**

A338H  Grade Level 11, 12  
1 Accelerated Credit

Honors PreCalculus/Trigonometry is for students who have successfully completed Honors Algebra II and are preparing for higher education. This course continues many of the topics from Honors Algebra II, but the treatment of the subject is more detailed and rigorous. The course includes the study of trigonometric identities, right triangles, circular functions, inverses, complex numbers and logarithmic functions. The course also includes an extensive introduction to topics from college algebra, such as sequences and series, matrices, vectors, and limits. Technology is considered as a tool to model real world problems and apply mathematical concepts. It also includes topics on math SAT and the math college entrance exam. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

**Prerequisite:** Earned an Honors Algebra II credit

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**ADVANCED PLACEMENT STATISTICS**

A336AP  Grade Level 11, 12  
1 AP Credit

Advanced Placement Statistics introduces students to four broad conceptual themes of statistics: exploring data, observing patterns and departures from patterns; planning a study, deciding what to measure and how to measure it; anticipating patterns in advance, introducing probability and simulation; and statistical inference, confirming models for explanations of patterns. Technology is used extensively throughout the course as students are actively engaged in analyzing data from a wide variety of sources. This course is based on the Advanced Placement Statistics curriculum. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Statistics exam.

**Prerequisite:** Earned an Honors PreCalculus/Trigonometry credit or Math Department Leader recommendation

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**ADVANCED PLACEMENT CALCULUS**

A341AP for 1 Credit and A339AP for 2 Credits  Grade Level 12  
1 or 2 AP Credits

Advanced Placement Calculus is a course that prepares students to take the Advanced Placement Calculus exam offered each May. It follows the rigorous curriculum specified by the College Board and includes topics in both differential and integral calculus including finding the limit of changing rates, the velocity of a moving particle, the area under a curve, and the volume of a solid. Students make extensive use of graphing calculator technology and learn to communicate their knowledge and solutions to problem both orally and in writing. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Each student, in consultation with the instructor, determines which Advanced Placement exam (AB or BC) is most appropriate to take.

**Prerequisite:** Earned an Honors PreCalculus/Trigonometry credit
COLLEGE ALGEBRA
A346    Grade Level 11, 12  1 Accelerated Credit
College Algebra is a problem solving approach to the nature of mathematics as a logical system. The structure of the number system is developed axiomatically and extended by logical reasoning to cover essential algebraic topics: algebraic expression, functions, and theory of equations. This course will follow the same Scope and Sequence of Hagerstown Community College Math 101 College Algebra. This is a dual enrollment course.
Prerequisite: Earned an Algebra II credit

IB MATHEMATICS STUDIES (SL)
A337IB    Grade Level 11, 12  1 IB Credit
IB Mathematical Studies (offered only at North Hagerstown High School) provides a realistic mathematics course for students with varied backgrounds and abilities. The course builds confidence and encourages an appreciation of mathematics in students who do not anticipate a need for more formal or theoretical mathematics in their future studies. The course develops the skills needed to cope with the mathematical demands of a technological society with an emphasis on the application of mathematics. Students taking this course build on their skills of basic arithmetic, algebra, geometry, and trigonometry. Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: Honors Algebra II

IB MATHEMATICS (SL)
A340IB    Grade Level 11, 12  1 IB Credit
IB Mathematics SL (offered only at North Hagerstown High School) introduces mathematical concepts through the development of mathematical techniques. Students apply mathematical knowledge to authentic situations. The students appreciate the power and usefulness of mathematics as well as develop an understanding of the principles and nature of mathematics. Throughout the course students develop problem-solving skills and use appropriate technology in problem-solving. The students use the precision of mathematics in their investigations and analyses as well as within their communications and justifications of results. Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: Honors PreCalculus/Trigonometry and AP Statistics

IB MATHEMATICS HL (PART 1) (HL)
A343IB    Grade Level 11, 12  1 IB Credit
IB Mathematics HL Part 1 is designed for students who wish to study mathematics in depth and/or pursue interests in areas related to mathematics. Students apply their mathematical knowledge to authentic situations. The aims of the course are that students be able to appreciate the power and usefulness of mathematics as well as develop an understanding of the principles and nature of mathematics. Students develop problem solving skills as well as use appropriate technology in problem solving. Students use the precision of mathematics in their investigations and analyses as well as within their communications and justifications of results. Students taking this course build on their knowledge of algebra, trigonometry and statistics as well as begin to explore calculus. The internal assessment portfolios require students to collect, analyze and evaluate data.
Prerequisite: Honors PreCalculus/Trigonometry

IB MATHEMATICS HL (PART 2) (HL)
A344IB    Grade Level 11, 12  1 IB Credit
IB Mathematics HL Part 2 is a course designed for students who wish to study mathematics in depth and/or pursue interests in areas related to mathematics. Students apply their mathematical knowledge to authentic situations. The aims of the course are that students be able to appreciate the power and usefulness of mathematics as well as develop an understanding of the principles and nature of mathematics. Students develop problem solving skills as well as use appropriate technology in problem solving. Students use the precision of mathematics in their investigations and analyses as well as within their communications and justifications of results. Students taking this course build on their knowledge of algebra, trigonometry and statistics as well as study vectors, probability, infinite series, calculus and differential equations in depth. The internal assessment portfolios will require the student to collect, analyze and evaluate data. Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: IB Mathematics HL Part 1 and AP Calculus or concurrent enrollment in AP Calculus

FINANCIAL LITERACY
A839    Grade Level 11, 12  1 Mathematics Credit
Students will study consumer decision making, consumer protection skills, how credit works, the different types and functions of financial institutions, investing, savings, insurance, paychecks and taxes, housing costs, and using spending plans to accomplish personal financial goals. In each unit students will learn and practice the application of mathematics through the integration of a consumer mathematics curriculum into the lessons. Students will participate in a personal finance management simulation as part of the culminating activity for the course. Financial Literacy does not meet the requirements as a fourth math credit for meeting USMD Completer requirements.
The Math Transition course is a semester long mathematics course designed to hone skills developed in Algebra II and strengthen underlying skills necessary with graphing, evaluating, and interpreting functions. Students will review and build upon algebra concepts beginning with linear, quadratic, and exponential functions and extend through rational and radical functions. Students will retake the Algebra II MCAP exam or a College and Career Readiness assessment during this course in order to meet the College and Career Readiness requirement for math.

**Prerequisite:** Must be a senior and have earned an Algebra II credit but not have passed the Algebra II MCAP exam.
The Computer Science Program provides honors and Advanced Placement computer science courses. Foundations of Computer Science develops students’ computational thinking practices. The Advanced Placement courses prepare students to take the Advanced Placement exams. Interdisciplinary skills needed to solve real world problems are provided to students through an experience-based curriculum. Collaborative learning and project work are an integral and necessary part of each course. The recommended sequence for the Computer Science completer: Foundations of Computer Science, AP Computer Science Principles, AP Computer Science A, then Advanced C++ or another college-level computer science course or the Project Lead The Way Computer Science pathway sequence available at Williamsport High School.
These Computer Science courses are only available at Boonsboro High, North Hagerstown High, and Smithsburg High. The PLTW Computer Science courses are only available at Williamsport High School (WHS).

FOUNDATIONS OF COMPUTER SCIENCE
A350H  Grade Level 9, 10, 11, 12  1 Elective Credit
Foundations of Computer Science, the first course in the computer science completer, is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Rather than focusing the entire course on learning particular software tools or programming languages, the courses is designed to focus the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. The goal is to develop in students the computational thinking practices of algorithm development, problem solving and programming within the context of problems that are relevant. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues. This course includes a broad range of topics in computing, including robotics; programming in several languages such as Processing and Java; and cyber security. Available at BHS, CSHS, HHS, NHHS, SHHS, and SHS.

IB COMPUTER SCIENCE (SL)
A357IB  Grade Level 11, 12  1 IB Credit
IB Computer Science, which is offered only at North Hagerstown High School, focuses on software development, fundamentals of computer systems, computer mathematics, algorithms, and the relationship between computing systems and society. Students are expected to acquire mastery of specified aspects of the Java programming language. An emphasis is placed on the use of a logical approach and analytical thinking while using the computer to solve problems. Students will take the IB Computer Science exam at the conclusion of the course. Students must complete all assessment requirements to receive IBO recognition for completing this course.

ADVANCED PLACEMENT COMPUTER SCIENCE A
A358AP  Grade Level 11, 12  Either 1 AP CTE Credit or 1 AP Mathematics Credit
AP Computer Science A offers students the opportunity to expand their knowledge in the field of computer science. The topics included in this course closely parallel those of an introductory course for computer science majors at most colleges and universities. This course is designed for the highly motivated learner. Exercises cover rigorous problem definition, program implementation strategies, and investigations into the current AP Case Study. 
Prerequisite: Successful completion of Foundations of Computer Science and Advanced Placement Computer Science Principles, completion of or concurrent enrollment in Algebra II, and teacher recommendation

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES
A352AP  Grade Level 10, 11, 12  1 AP Credit
AP Computer Science Principles advances students’ understanding of the technical aspects of computing, including programming and algorithm design, computer system organization and operation, and data representation and information organization. This course includes the use of several programming languages, based on the specific project or problem students must solve. Students in this course are prepared to take the AP Computer Science Principles exam.

ADVANCED C++
A361  Grade Level 11, 12  1 Advanced Credit
This college-level course continues to introduce students to object-oriented programming using C++ and Visual C++. Students learn OOP concepts such as classes, friends and templates and use these to build a program designed to run under a Microsoft Windows environment. Using a hands-on approach, students have the opportunity to design, code and test object-oriented applications. Additional time outside of class will be necessary to write programs. This course is the culminating capstone course for the Computer Science completer.

PLTW COMPUTER SCIENCE ESSENTIALS
A362  Grade Level 9, 10, 11, 12  1 Elective Credit
Essentials uses Python as a primary tool to incorporate multiple platforms and programming languages for computation. This course will introduce critical thinking about computing, and incorporate professional tools that foster collaboration. This course will provide the foundation for the AP Computer Science courses, as well as the Cyber Security course. Available at WHS.

PLTW ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES
A352AP  Grade Level 10, 11, 12  1 AP Credit
AP Computer Science Principles advances students’ understanding of the technical aspects of computing, including programming and algorithm design, computer system organization and operation, and data representation and information organization. This course includes the use of several programming languages, based on the specific project or problem students must solve. Students in this course are prepared to take the AP Computer Science Principles exam. Available at WHS.
PLTW ADVANCED PLACEMENT COMPUTER SCIENCE A
A358AP  Grade Level 11, 12  Either 1 AP CTE Credit or 1 AP Mathematics Credit AP Computer Science A offers students the opportunity to expand their knowledge in the field of computer science. The topics included in this course closely parallel those of an introductory course for computer science majors at most colleges and universities. This course is designed for the highly motivated learner. Exercises cover rigorous problem definition, program implementation strategies, and investigations into the current AP Case Study. Available at WHS.
Prerequisite: Successful completion of Foundations of Computer Science and Advanced Placement Computer Science Principles, completion of or concurrent enrollment in Algebra II, and teacher recommendation

PLTW CYBERSECURITY
A363  Grade Level 11, 12  1 Elective Credit Cybersecurity allows students to learn the tools and methods of cybersecurity and allows students to design solutions that will allow people to share resources while protecting privacy. This will teach how computational resources are attacked, and teach methods to problem solve and prevent. This also allows students the ability to design and implement protections and alerts to keep information safe. This course will also teach students how information is shared, and the safeguards that need to be in place for security measures. Available at WHS.

IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY (ITGS) STANDARD LEVEL (SL)
A200IB  Grade Level 11, 12  1 IB Credit The IB information technology in a global society (ITGS) standard level (SL) course is a group 3 elective course that may be taken to fulfill the group 6 requirement for the IB Diploma. ITGS is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts. Students will complete strands based on social and ethical significance, application to specified scenarios, and IT systems before completing a project developing an original IT product for a specified client. Students will complete the required internal assessments and take the IB ITGS exam at the end of the course.
Science Course Descriptions

Students are required to earn a minimum of three credits in science in order to meet the requirements to earn a high school diploma. All science courses except the internship program (A400) qualify for graduation. One of those credits must be Biology. All students must pass all applicable Maryland assessments.
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<th>Grade Choices</th>
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<td><strong>9th grade</strong></td>
<td>Integrated Physics and Chemistry</td>
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<td>Honors Biology</td>
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<td><strong>10th grade</strong></td>
<td>Biology</td>
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<td>Honors Chemistry</td>
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<td><strong>11th grade</strong></td>
<td>Advanced Science Choices</td>
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<td>Forensic Science</td>
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<td>AP Physics I &amp; II</td>
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<td>Marine Science</td>
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<td>Advanced Anatomy &amp; Physiology</td>
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<td><strong>12th grade</strong></td>
<td>11th grade Choices</td>
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<td>Earth &amp; Space Science</td>
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<td>Honors Physics or AP Physics I</td>
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ADVANCED RESEARCH SEMINAR
A299  Grade Level 11, 12  1 Accelerated Credit
This seminar provides students the opportunity to extend their understanding and application of prior learning through an integrated research or service learning project. Students will be expected to use high level reading, writing, research and communication skills to identify and develop a research question; structure and carry out the research; summarize information and data; and create a final research product. Students will work under the direction of an appropriate teacher mentor. All students in this seminar will be expected to present their outcomes in a public forum.

SCIENCE INTERN PROGRAM
A400  Grade Level 12  Up to 4 Accelerated Elective Credits
Students participating in the Werner H. Kirsten Science Intern Program at the National Cancer Institute - Frederick or in the Introduction to Applied Biotechnology Research course as part of the InnovaBio-MD program at Hagerstown Community College are eligible to earn elective science credits for the experiences. Each of these unpaid internship placements is competitively awarded through formal application processes. Students must take part in safety and skills training and then work with research scientists to explore real-world problems. Some students may be allowed to design and conduct their own scientific research as an extension of the program (students are awarded accelerated science elective credits based on the program expectations, the amount of time dedicated to the internship, and the successful completion of the laboratory experiences).

Prerequisite: School pre-approval is required as part of the application process. Applicants are expected to have completed or be concurrently enrolled in AP level mathematics, science, and/or technology programs

FORENSIC SCIENCE
A401  Grade Level 11, 12  1 Accelerated Credit
Forensic Science is a laboratory-based science course designed to provide an elective science credit for senior students. Forensic Science is multi-disciplinary. Topics are drawn from content in chemistry, physics, biology, and earth science with heavy emphasis on problem-solving and the skills and processes of science. Applied technology and mathematics are integral course components. Students develop their observational, analytical, and organizational skills in working with complex problems involving numerical data, evidence, and logical reasoning.

Prerequisite: Three science credits

BIOLOGY
A409  Grade Level 9, 10  1 Biology Credit
Biology is a laboratory-based course that presents basic information about cells, organisms, life processes, and the interactions between living things and their environment. Dissection of vertebrate organisms is included. This course provides students with information necessary to be educated citizens in a scientific world. Biology is designed for ninth and tenth grade students with average ability. This course fulfills the biology requirement for graduation.

HONORS BIOLOGY
A409H  Grade Level 9, 10  1 Biology Credit
Honors Biology is a challenging laboratory-based course that presents detailed information about cells, organisms, life processes, and the interactions between living things and their environment. This course provides students with rigorous information necessary to be educated citizens in a scientific world. Dissection of vertebrate and invertebrate organisms is included. Honors Biology is designed for ninth and tenth grade students with high ability. This course fulfills the biology requirement for graduation and is preparation for the Maryland High School Assessment in science. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

HONORS CHEMISTRY
A411H  Grade Level 9, 10, 11, 12  1 Science Credit
Honors Chemistry is a challenging lab-based course that focuses on the study of matter including atomic structure, bonding, periodicity, chemical formulas, chemical equations, chemical relationships, and energy. These topics are studied theoretically, descriptively, and through laboratory experiences. This course is designed to provide a foundation for students pursuing college training or for those with particular interests in science. Students in this course should have demonstrated success in previous science courses. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

Prerequisite: Algebra I

EARTH AND SPACE SCIENCE
A413  Grade Level 9, 10, 11  1 Science Credit
Earth and Space Science is an introductory lab-based course that focuses on the fundamentals of the various systems whose interactions are responsible for the working of planet Earth. The topics of meteorology, climatology, oceanography, mineralogy, astronomy, geology, geomorphology, and volcanism are included. Activities include mapping, laboratory experiences, and field trips.
HONORS EARTH AND SPACE SCIENCE
A413H  Grade Level 9, 10, 11  1 Science Credit
Honors Earth and Space Science is a challenging course that focuses on the various systems whose interactions are responsible for the working of planet Earth. Topics include meteorology, climatology, oceanography, mineralogy, astronomy, geology, geomorphology, and volcanism. This course places emphasis on earth science phenomena using textbooks, maps, classroom activities, and laboratory experiences and field trips. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

HONORS PHYSICS
A419H  Grade Level 10, 11, 12  1 Science Credit
Honors Physics is a challenging lab-based course in the study of energy and its interaction with matter. The following aspects of physics are covered: mechanics: motion, forces, work, heat and sound; electricity and electronics: electric forces and fields, magnetic forces and fields, alternating and direct current, circuits; optics: electromagnetic radiation and wave nature; and atomic physics: atomic structure and nuclear forces. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

Prerequisite: Algebra I and Geometry

INTEGRATED PHYSICS AND CHEMISTRY
A420  1 Science Credit
Integrated Physics and Chemistry is a lab-based science course in which students will focus on the standards for high school chemistry and physics including: the structure and properties of matter, chemical reactions, nuclear processes, forces, motion and interactions, conservation and transfer of energy, energy in chemical processes, wave properties, electromagnetic radiation, and applications of technology and instrumentation. Learning science concepts at a conceptual level will be linked to the crosscutting concepts of science and be learned through science and engineering practices.

Prerequisites: None

ADVANCED PLACEMENT BIOLOGY
A421AP  Grade Level 11, 12  1 AP Credits
Advanced Placement Biology is laboratory-based, college-level course. Students study: molecules and cells (biochemistry, cells, cellular energetics); heredity and evolution (heredity, molecular genetics, evolutionary biology); organisms and populations (diversity of organisms, structure and function of plants and animals); and ecology. Students learn the methods and processes of biology through a laboratory approach. Lab-work includes dissection of vertebrate organisms. Students are expected to take the Advanced Placement Biology exam.

Prerequisites: Honors Biology, Honors Chemistry and Algebra II

ADVANCED PLACEMENT CHEMISTRY
A423AP  Grade Level 11, 12  1 AP Credits
Advanced Placement Chemistry is laboratory-based college-level course. Students study: structure of matter (atomic theory and structure, chemical bonding, nuclear chemistry); states of matter (gases, liquids and solids, solutions); chemical reactions (reaction types, stoichiometry, equilibrium, kinetics, thermodynamics); and descriptive chemistry. Students learn the methods and processes of chemistry through a laboratory approach. Students will have assigned reading and/or other course-related activities prior to the beginning of the course. Students are expected to take the Advanced Placement Chemistry exam.

Prerequisites: Honors Chemistry and completion or concurrent enrollment in Algebra II

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE
A424AP  Grade Level 11, 12  1 AP Credit
Advanced Placement Environmental Science is a lab-based college level course that uses scientific processes to explore environmental topics including energy transfer, ecological processes, interdependence of Earth systems, environmental problems, and human interaction with the environment. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Environmental Science Exam.

Prerequisite: Biology or Honors Biology, Chemistry or Honors Chemistry, and Algebra II

ADVANCED ANATOMY AND PHYSIOLOGY
A427  Grade Level 11, 12  1 Accelerated Credit
Advanced Anatomy and Physiology is a science elective at some schools. Students use a college-level, investigative approach to develop an understanding of the basic structure and function of the human body. Using a combination of lecture, laboratory, research and field trips, this course is designed for those students considering a career in allied health fields. The dissection of a cat is a major laboratory activity.

Prerequisite: Biology or Honors Biology and Chemistry or Honors Chemistry and Algebra II
ADVANCED BIO-MEDICAL SCIENCE
A428 Grade Level 12 1 Accelerated Credit
Advanced Bio-Medical Science is a science elective credit and second level course for the Medical Careers Academy at North Hagerstown High School. This course incorporates components of medical psychology and ethics, forensic science, and biotechnology as well as more complete study of the structure and function of the human body and medical careers. This course offers expanded opportunities for application of high level science skills to real-world situations.
Prerequisite: Advanced Anatomy and Physiology

ADVANCED PLACEMENT PHYSICS 1
A439AP Grade Level 11, 12 1 AP Credit
AP Physics 1 is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits.
Prerequisites: Completion of Algebra II and Honors Physics or with teacher recommendation

ADVANCED PLACEMENT PHYSICS 2
A440AP Grade Level 11, 12 1 AP Credit
AP Physics 2 is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics.
Prerequisites: Completion of Algebra II and Advanced Placement Physics I

IB BIOLOGY (PART 1) (HL, SL)
A421IB Grade Level 11, 12 1 IB Credit
IB Biology (Part 1) is a year-long course in the IB Biology sequence at North Hagerstown High School and prepares students to take the IB Biology Higher Level or Standard Level exam as seniors. IB Biology is designed to give students a secure knowledge of a limited body of facts and a broad understanding of the field of biology. Students develop an understanding and appreciation of the processes and applications of global biology, and the impact of biological science on the culture and society of the world is emphasized. Students define problems, identify viable solutions, and research risks and benefits. They reach decisions based on scientifically proven methods and present their findings coherently and logically. They become scientifically literate world citizens able to make important life decisions. The students in the course will be assessed with the standard IB assessment methods and are expected to continue into IB Biology (Part 2).
Prerequisite: Honors Biology and Honors Chemistry and Algebra II

IB BIOLOGY (PART 2) (HL, SL)
A422IB Grade Level 11, 12 1 IB Credit
IB Biology (Part 2) is the concluding course in the IB Biology sequence at NHHS and prepares students to take the IB Biology Higher or Standard Level exam. Students take the IB Biology Higher or Standard Level exam at the conclusion of the course. Students must complete all assessment requirements to receive IBO recognition for completing this course. Students are required to participate in an IBO Group 4 project with students from the other IB science courses within the school.
Prerequisite: IB Biology (Part 1)

IB PHYSICS (PART 1) (SL)
A429IB Grade Level 10, 11, 12 1 IB Credit
IB Physics (Part 1) is the first course in the IB Physics sequence at North Hagerstown High School preparing students to take the IB Physics Standard or Higher Level exam as seniors. IB Physics at the Standard or Higher is a course that develops a search for order and predictability in classical mechanics, thermodynamics, and electromagnetism and leads to the necessary extension into the realms of atomic and nuclear physics, quantum physics, and relativity. Honing mathematical and problem solving skills is an integral part of comprehending our physical world in this course. Students will be assessed with the standard IB assessment methods and are expected to continue into IB Physics (Part 2). Students must complete all assessment requirements to receive IBO recognition for completing this course.
Prerequisite: Completion or concurrent enrollment in Precalculus or Trigonometry

IB PHYSICS (PART 2) (SL)
A430IB Grade Level 11, 12 1 IB Credit
IB Physics (Part 2) is the concluding course in the IB Physics sequence at North Hagerstown High School preparing students to take the IB Physics Standard or Higher Level exam. The students in the course will be assessed with the standard IB assessment methods. Students take the IB Physics Standard or Higher Level exam at the conclusion of the course. Students are required to participate in an IBO Group 4 project with students from the other IB science courses within the school.
Prerequisite: IB Physics (Part 1)
IB CHEMISTRY (PART 1) (SL)  
A423IB/A423IBSM  Grade Level 10, 11, 12  1 IB Credit  
IB Chemistry (Part 1) is the first course in the IB Chemistry sequence at North Hagerstown High School preparing students to take the IB Chemistry Standard Level exam. IB Chemistry at the standard level is a course that combines academic study with the acquisition of practical and investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Students in IB Chemistry 1 SL will focus on core topics of Stoichiometric Relationships, Atomic Structure, Periodicity, Chemical Bonding/Structure, Energetics/Thermochemistry, Chemical Kinetics, Equilibrium, Acids/Bases, Redox Processes, Organic Chemistry, and Measurement/Data Processing. Students will be assessed with the standard IB assessment methods and are expected to continue into IB Chemistry (Part 2). Students must complete all assessment requirements to receive IBO recognition for completing this course.  
Prerequisite: Completion or concurrent enrollment in Honors Pre-Calculus/Trigonometry

IB CHEMISTRY (PART 2) (SL)  
A424IB  Grade Level 11, 12  1 IB Credit  
IB Chemistry (Part 2) is the concluding course in the IB Chemistry sequence at North Hagerstown High School preparing students to take the IB Chemistry Standard Level exam. Students will study the core topic as well as one additional option topic of Materials, Biochemistry, Energy, or Medicinal Chemistry as selected by the teacher. The students in the course will be assessed with the standard IB assessment methods. Students take the IB Chemistry Standard Level exam at the conclusion of the course.  
Prerequisite: IB Chemistry (Part 1)

MARINE SCIENCE/OCEANOGRAPHY  
A414/A414SM  Grade Level 12  1 Accelerated Credit  
Marine Science is a multidisciplinary, laboratory-based science course designed to provide an elective science credit for senior students. In this class, students will seek to explain phenomena related to the physical structure and chemistry of the ocean, the diversity of ocean life, marine ecology, and the impact of oceans on climate and weather. A variety of marine environments including estuaries, tide pools, reefs, vents and oceanic zones will be studied in this course. The course will also explore the ecological relationships between marine organisms, their habitats, and human interactions with marine ecosystems.  
Prerequisite: Three science credits

IB ENVIRONMENTAL SYSTEMS AND SOCIETIES (SL)  
A444IB/A44IBSM  Grade Level 11, 12  1 IB Credit  
IB ESS is an interdisciplinary course (Science, Social Studies) that is offered only at standard level (SL). As an interdisciplinary course, ESS is designed to combine the methodology, techniques and knowledge associated with group 4 (sciences) with those associated with group 3 (individuals and societies). ESS is a complex course, requiring a diverse set of skills from its students. It is firmly grounded in both a scientific exploration of environmental systems in their structure and function and in the exploration of cultural, economic, ethical, political, and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world. The interdisciplinary nature of the course requires a broad skill set from students and includes the ability to perform research and investigations and to participate in philosophical discussion. The course requires a systems approach to environmental understanding and problem-solving, and promotes holistic thinking about environmental issues. It is recognized that to understand the environmental issues of the 21st century and suggest suitable management solutions, both the human and environmental aspects must be understood. Students should be encouraged to develop solutions from a personal to a community and to a global scale. Through the exploration of cause and effect, the course investigates how values interact with choices and actions, resulting in a range of environmental impacts. Students develop an understanding that the connections between environmental systems and societies are diverse, varied and dynamic. The complexity of these interactions challenges those working towards understanding the actions required for effective guardianship of the planet and sustainable and equitable use of shared resources.
World Language
Course Descriptions

World language instruction enables students to communicate in a second language in a culturally appropriate manner by integrating communication skills with higher order thinking skills and creativity. World language instruction and assessment use a proficiency-based approach, which focuses on what students can do with the language and to what degree they are able to function in the language. Instruction and assessment use authentic tasks that are performance-based. The study of culture is an integral part of the curriculum; it sets the stage for language use and heightens students' sensitivity to and appreciation for diverse groups of people, cultures, and customs.

The University of Maryland Completer program requires that students study a minimum of two years of the same language, while some colleges prefer three to four years of language study.

Please speak with your School Counseling Office for your school's language offerings.
WORLD AND CLASSICAL LANGUAGE COURSE OF SEQUENCE

Spanish AP Literature or IB (HL)
1 AP or IB credit

↑

AP or IB (SL) Part 2 Language
1 credit

↑

Honors Level IV or IB (SL) Part 1
Accelerated Credit

↑

Honors Level III
Accelerated Credit

↑

Honors Level II or Level II

↑

Honors Level I or Level I
### WORLD LANGUAGES

**Level I**  
Grade Level 9, 10, 11, 12  
1 World Language Credit

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<tr>
<th>Language</th>
<th>Grade Levels</th>
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<tbody>
<tr>
<td>French I</td>
<td>A502</td>
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<tr>
<td>Honors French I</td>
<td>A502H</td>
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<tr>
<td>German I</td>
<td>A512</td>
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<tr>
<td>Honors German I</td>
<td>A512H</td>
<td></td>
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<tr>
<td>Spanish I</td>
<td>A532</td>
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<tr>
<td>Honors Spanish I</td>
<td>A532H</td>
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<tr>
<td>Honors Japanese I</td>
<td>A552H</td>
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<tr>
<td>Honors Italian I</td>
<td>A572H</td>
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Students develop basic communication skills in listening, speaking, reading, and writing using authentic topics, texts, situations and real-world media. Students engage in brief exchanges and short verbal and written presentations about personal interests in the target language. A variety of topics include: description of self and others, schools and activities, food and beverage and family. Students differentiate between questions and statements, and are able to respond. Students recognize various viewpoints and cultures while increasing their geographical knowledge. Students make connections with other subject areas by applying prior knowledge to new cultural concepts, such as the use of math to make metric and currency conversion. Students will end the course at an ACTFL Novice-Mid proficiency level.

**Level II**  
Grade Level 9, 10, 11, 12  
1 World Language Credit

**Prerequisite: Honors I or I**

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<th>Language</th>
<th>Grade Levels</th>
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<tbody>
<tr>
<td>French II</td>
<td>A504</td>
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<tr>
<td>Honors French II</td>
<td>A504H</td>
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<tr>
<td>German II</td>
<td>A514</td>
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<tr>
<td>Honors German II</td>
<td>A514H</td>
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<tr>
<td>Spanish II</td>
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<tr>
<td>Honors Spanish II</td>
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<tr>
<td>Honors Japanese II</td>
<td>A554H</td>
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Students continue to expand and develop their language skills in the areas of listening, speaking, reading, and writing using authentic tasks. Students participate in exchanges about familiar and personal topics in the present, past and future in the target language. Students communicate needs and desires in everyday living and travel situations. Students make presentations and write simple paragraphs on familiar topics in the target language. Students read to understand the main idea and some essential details. Students can demonstrate culturally appropriate etiquette and perspectives. Students will end the course at an ACTFL Novice High proficiency level.

**Level III**  
Grade Level 9, 10, 11, 12  
1 Accelerated World Language Credit

**Prerequisite: Honors II or II**

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<th>Language</th>
<th>Grade Levels</th>
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<tr>
<td>Honors French III</td>
<td>A506H</td>
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<tr>
<td>Honors German III</td>
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<tr>
<td>Honors Spanish III</td>
<td>A536H</td>
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<tr>
<td>Honors Japanese III</td>
<td>A556H</td>
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Students continue to expand and refine their language skills through more active use of the language. Students discuss and defend an opinion on selected topics, which may range from the personal to the global level in the target language. Students make presentations and write compositions on similar topics. Functional and authentic everyday tasks and themes may include: leisure activities, appreciation of the arts, and healthy living. Students deepen their knowledge and appreciation of world cultures through segments of authentic literature, audio, and video presentations. Students will end the course at an ACTFL Intermediate Low proficiency level.

**Level IV**  
Grade Level 10, 11, 12  
1 Accelerated World Language Credit

**Prerequisite: Honors III**

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<th>Language</th>
<th>Grade Levels</th>
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<tr>
<td>Honors French IV</td>
<td>A507H</td>
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<tr>
<td>Honors German IV</td>
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<td>Honors Spanish IV</td>
<td>A537H</td>
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<tr>
<td>Honors Japanese IV</td>
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Students continue to enhance language proficiency through discussion or debate of a wide variety of topics in the target language while making personal connections at the abstract level, hypothesizing, persuading, and negotiating to reach conclusions. Students compose verbal, written, and multimedia presentations in a variety of formats for a variety of audiences and purposes in the target language. Students understand the main idea and details of conversations as well as information presented in a variety of media. Students recognize how culture affects daily life in target language countries and gain a perspective of a variety of literary sources. Students will end the course at an ACTFL Intermediate Mid proficiency level.
ADVANCED PLACEMENT LANGUAGE AND CULTURE

Prerequisite: Honors IV
Advanced Placement French Language and Culture
A508AP Grade Level 10, 11, 12 1 AP Credit
Advanced Placement German Language and Culture
A518AP Grade Level 10, 11, 12 1 AP Credit
Advanced Placement Spanish Language and Culture
A538AP Grade Level 10, 11, 12 1 AP Credit
Advanced Placement Japanese Language and Culture
A558AP Grade Level 10, 11, 12 1 AP Credit

The AP Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in the target language. The AP Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students’ awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

ADVANCED PLACEMENT SPANISH LITERATURE AND CULTURE

Prerequisite: AP Spanish Language and Culture
Advanced Placement Spanish Literature
A540AP Grade Level 10, 11, 12 1 AP Credit

The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students continue to develop proficiencies across the full range of the modes of communication (interpersonal, presentational, and interpretive), honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, and literary criticism).

INTERNATIONAL BACCALAUREATE

INTERNATIONAL BACCALAUREATE LANGUAGE PART 1 STANDARD LEVEL (SL) 1 IB Credit
Grade Level 11, 12
Prerequisite: Honors III at NHHS
IB FRENCH (PART 1) (SL) A510IB
IB GERMAN (PART 1) (SL) A518IB
IB SPANISH (PART 1) (SL) A540IB

IB Language Part 1 SL is the first course in the IB language sequence at North Hagerstown High School that prepares students to take the IB Language Standard Level exam. The course focuses on developing linguistic skills and reaching a high level of sophistication that exceeds what is expected of a beginning language student. Students explore target language cultures to develop a refined application of the language. The course follows IB protocol for internal and external assessments.

INTERNATIONAL BACCALAUREATE LANGUAGE PART 2 STANDARD LEVEL (SL) 1 IB Credit
Grade 11, 12
Prerequisite: IB SL (Part 1)
IB FRENCH (PART 2) (SL) A511IB
IB GERMAN (PART 2) (SL) A519IB
IB SPANISH (PART 2) (SL) A541IB

IB Language Part 2 SL is the concluding course in the IB language sequence at North Hagerstown High School that prepares students to take the IB Language Standard Level exam. The course follows IB protocol for internal and external assessments, and students take the IB Language Standard Level exam at the conclusion of the course. Students must complete all assessment requirements to receive IBO recognition for completing this course.
INTERNATIONAL BACCALAUREATE LANGUAGE HIGHER LEVEL (HL)

Grade 11, 12
Prerequisite: IB SL (Part 2)

IB FRENCH (HL) A522IB
IB GERMAN (HL) A520IB
IB SPANISH (HL) A560IB

IB Language HL is designed for students who wish to continue their studies of Language and will prepare them for the IB Language Higher Level exam. Higher level students will continue their acquisition of reading, writing, speaking and listening skills through a variety of authentic target language experiences. Students will be required to read sophisticated literary texts. The course follows IB protocol for internal and external assessments, and students take the IB Higher Level exam at the conclusion of the course. Students must complete all assessment requirements to receive IBO recognition for completing this course.

INDEPENDENT STUDY

HONORS LANGUAGE INDEPENDENT STUDY
A511H Grade Level 11, 12 1 World Language Credit
Language Independent Study offers students an independent study of language, literature, and cultures. It is designed to improve a student's ability to speak and to understand spoken and written in a variety of diverse situations with native speakers and authentic materials. This course improves the student's ability to read for social and literary needs and to speak and write with increased accuracy and complexity. Students read for social and literary needs. Students explore topics related to history, literature, and the arts. Students in Independent Study are scheduled with students in Levels I, II, III, IV or Advanced Placement.
A511H--French, Prerequisite Honors French IV
A519H--German, Prerequisite Honors German IV
A560H--Japanese, Prerequisite Honors Japanese IV
A541H--Spanish, Prerequisite Honors Spanish IV

CLASSICAL LANGUAGES

LATIN I
A522 Grade Level 9, 10, 11, 12 1 World Language Credit
Latin I is designed to introduce students to reading and writing Latin with a focus on grammar and vocabulary. This course places emphasis on the expansion of English vocabulary through the study of Latin. In addition, Roman mythology, Latin phrases and abbreviations incorporated into English, classical allusions, and the classical foundations of Western civilization are introduced. The understanding of the elements of English grammar and good study habits are helpful and should be enhanced in this course.

HONORS LATIN I
A522H Grade Level 9, 10, 11, 12 1 World Language Credit
Honors Latin I is designed to introduce students to reading and writing Latin with a focus on grammar and vocabulary. This course places emphasis on the expansion of English vocabulary through the study of Latin. In addition, Roman mythology, Roman life styles, Latin phrases and abbreviations incorporated into English, classical allusions, and the classical foundations of Western civilization are introduced. The understanding of the elements of English grammar and good study habits are helpful and should be enhanced in this course. This course follows a pre-AP sequence of instruction and is meant to prepare students for the rigors of the Advanced Placement course and exam. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

LATIN II
A524 Grade Level 9, 10, 11, 12 1 World Language Credit
Latin II students review and continue the grammar that is completed by the middle of the year. The focus is on reading increasingly advanced literature using more difficult grammar and vocabulary. Students start with Hercules and his Twelve Labors, Jason and the Argonauts, and finally Caesar's Gallic Campaigns while learning about Roman military life. The influx of Latin into English and the influence of Roman civilization today will continue to be stressed.
Prerequisite: Latin I

HONORS LATIN II
A524H Grade Level 9, 10, 11, 12 1 World Language Credit
Honors Latin II students review and continue the grammar that is completed in Latin I. This course focuses on reading increasingly advanced literature using more difficult grammar and vocabulary. Students learn about Roman life by reading Caesar's Gallic Campaigns while learning about Roman military life. The influx of Latin into English and the influence of Roman civilization today continue to be stressed in Latin II. This course follows a pre-AP sequence of instruction and is meant to prepare students for the rigors of the Advanced Placement course and exam. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Honors Latin I or Latin I
HONORS LATIN III
A526H  Grade Level 10, 11, 12  1 Accelerated World Language Credit
Honors Latin III is an advanced level Latin course in which students read and translate Latin poetry including Catullus, Horace, Ovid, and Martial among others. This course focuses on expanding the student's knowledge of Latin language and Roman culture through poetic form and function. Students develop an understanding of poetry in Roman life. This course follows a pre-AP sequence of instruction and is meant to prepare students for the rigors of the Advanced Placement course and exam. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Honors Latin II or Latin II

HONORS LATIN IV
A527H  Grade Level 10, 11, 12  1 Accelerated World Language Credit
This course begins with a brief review of Latin grammar and vocabulary. The students translate and discuss selections from the works of Virgil or Catullus with Horace, Ovid, or Cicero. There is also an emphasis on Latin word origins specifically designed for SAT preparation. Other integral components include an examination of the cultural, social, and political context of Rome during the late Republican, early Empire era. This course follows a pre-AP sequence of instruction and prepares students for the rigors of the Advanced Placement course and exam. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Honors Latin III

ADVANCED PLACEMENT LATIN VERGIL
A530AP  Grade Level 11, 12  1 AP Credit
The AP Latin course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Vergil's Aeneid and Caesar's Gallic War. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical, historical, and literary sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context.
Prerequisite: Honors Latin IV

LATIN INDEPENDENT STUDY
A531H  Grade Level 10, 11, 12  1 World Language Credit
Latin Independent Study students read and translate rhetorical selection of Epic Literature and poetry. Students develop an understanding of the Roman legal system, civilization, and culture. Understanding of the art of rhetoric is stressed along with complex grammatical structure and literary terms. Students recognize and analyze the influence of classical culture on the modern world. Students in Latin Independent Study are scheduled with students in Honors Latin I, II, III, IV or Advanced Placement Latin Vergil. Latin Independent Study students may choose to take the Advanced Placement Latin Vergil exam.
Prerequisite: Honors Latin IV
Fine Arts
Course Descriptions

All courses in this section meet the Maryland Fine Arts graduation requirement.

**Accelerated Credit Option:**
In some Arts courses eleventh and twelfth grade students have the opportunity to earn Accelerated Credit by completing additional activities beyond the regular course of study. Students who commit to and complete the additional activities will earn Honors credit status and weighted grading to recognize their higher levels of achievement. Interested juniors and seniors should speak with their teachers about the availability of this Accelerated Credit option.
ART I
A602  Grade Level 9, 10, 11, 12  1 Credit
Art I is available to all students with no prior high school art experience. Course content includes the study of fundamental visual art elements (i.e., color, line, shape, etc.) and principles of design (i.e., balance, rhythm, contrast, etc.). Students survey art history and appreciation, demonstrate basic skills (i.e., drawing) and conceptual experiences, as well as use a wide variety of techniques and materials. Evaluation (critique/grading) of student works are teacher-directed with participation from students. Students are responsible to learn and improve their artwork. Students also are held accountable for the respect of materials and other students in the class.

ART II
A604  Grade Level 10, 11, 12  1 Credit
Art II is available to all students who have successfully completed Art I. This course is more advanced in concepts, techniques, and materials and includes a review of basic elements (line, shape, etc.) and principles (movement, rhythm, etc.), as well as further study of art history/philosophy with related arts/cultures. Critique and evaluation procedures are more self-directed. An introduction (for study) of commercial, industrial, and environmental design concepts and vocational/avocational possibilities are included. There also is rudimentary exposure to photography and film-making.
Prerequisite: Art I

HONORS ART III
A606H  Grade Level 11, 12  1 Credit
Honors Art III is designed to allow students to continue more advanced applications of basic skills learned in Art I and Art II. This course enables students to develop a portfolio of works that may be used for college or job applications. More intensive studies into aesthetic theories, such as imitationalism, formalism, and emotionalism are incorporated into an expanded survey of aesthetic criticism on a personal and investigative level. Written self evaluation is included as a demonstration of understanding of theories and disciplines of the visual arts. Students are required to demonstrate a willingness to practice and continue studies outside of the classroom experience, including exhibiting works and visiting museums. Introduction of careers in the arts is also included. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Art II

HONORS ART IV
A608H  Grade Level 11, 12  1 Credit
Honors Art IV provides a studio environment to students who successfully completed Art I, II, and III. All eligible students must have approval from an in-school art educator for enrollment in this course, which is designed for serious art students. Students are required to demonstrate proven ability, self-discipline, and a knowledge of materials, techniques, procedures, and critique methods. Course content may include major areas of concentration each marking period (i.e., students may study/practice ceramics for an entire marking period). Choice of content determined by one or more areas of study at the discretion of the teacher and/or one or more areas of study at the discretion of the student. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Art teacher recommendation and Art I, II and III

CERAMICS I
A609 Grade Level 10, 11, 12  1 Credit
Ceramics is available to all upper class students (Art I is a required prerequisite for this course). The course is intended for those studying ceramics for the first time and is a comprehensive introduction to the craft of clay working. The primary emphasis is on studio work leading to a portfolio of finished pieces by the end of the semester. The main goal of this course is to be able to create as well as appreciate expressive, beautiful three dimensional clay forms. Students will gain an understanding of other cultures and periods of human expression in clay and begin to be proficient at forming clay objects. Evaluation (critique/grading) of student works are teacher-directed with participation from students. Students are responsible to learn and improve their artwork. Students also are held accountable for the respect of materials and other students in the class. A studio fee may be required.
Prerequisite: Art I

PHOTOGRAPHY I
A611  Grade Level 10, 11, 12  1 Credit
Photography I is available to all upperclass students (Art I is a required prerequisite for this course). This course is primarily designed to offer learning experience in still photography. Basic content includes technical learning of camera(s) and darkroom equipment and procedures, functional application of photography (personal, vocational, educational), aesthetic (artistic) use of camera, critique technique/procedure of personal/other students’ work, basic history and theory related to photography, and the introduction of film-making. A studio/darkroom fee is required.
Prerequisite: Art I

PHOTOGRAPHY II
A613  Grade Level 11, 12  1 Credit
Photography II is a continuation of the study of techniques, procedures, history and criticism of still photography, cinema/video, and animation. Greater amounts of time are allotted to studio and field experiences. A studio/darkroom fee is required.
Prerequisite: Photography I

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DIGITAL PHOTOGRAPHY
A614  Grade Level 10, 11, 12  1 Credit
Digital Photography is available to all upper class students (Art I is a required prerequisite for this course). This course is primarily designed to develop skills in pixel based photographic design and printing. Printers, inks and paper have evolved that are able not only to match traditional continuous tone photographic quality, but can also extend traditional possibilities. The goals of this course include extending the possibilities for photographic printmaking to the digital realm and to realize a mature “digital darkroom.” Students develop practice skills using Adobe Photoshop tools and the Internet. A studio fee may be required.
Prerequisite: Art I

STUDIO PRACTICE ART
A615  Grade Level 9, 10, 11, 12  1 Credit
Studio Practice Art may be taken as an additional course in conjunction with Art II, Art III, and/or Art IV with successful completion of Art I. This is a studio course designed for students to pursue interests in a maximum of four discrete areas of art with lessons designed by the teacher to meet specific student interests. Special permission may be granted by the art teacher for Art I students to take this course. Note: This course may be taken more than once by qualified and recommended students.
Prerequisite: Art teacher recommendation and Art I

HONORS STUDIO PRACTICE ART
A619H  Grade Level 11, 12  1 Credit
Honors Studio Practice Art is designed to give students extended amounts of time to work in a studio environment in developing a portfolio. Honors Studio Practice Art consists of one area of art concentration. This area of investigation is developed in an individualized student plan designed by students and their teachers. Advanced Placement portfolio guidelines are considered in the development of an individualized student plan. Students are responsible to study the major aesthetic concepts of imitationalism, formalism, and emotionalism then apply these concepts to their artworks created using objective, non-objective, and abstract methods of production. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Art teacher recommendation and Studio Practice

HONORS PHOTOGRAPHY III
A627H  Grade Level 11, 12  1 Credit
Honors Photography III is a continuation of Photography II with selected emphasis on aesthetic theories as applied through photography and the creative and dramatic use of design concepts. Skills developed in Photography II are practiced and demonstrated through more complex problem solving and artistic interpretation. A studio/darkroom fee is required. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Photography II

HONORS PHOTOGRAPHY IV
A629H  Grade Level 11, 12  1 Credit
Honors Photography IV takes the experiences of Photography III and advances students to a greater height of photographic expression and development. It is intended for the photography major but not solely limited to those students. This course requires students to do concentrated problem solving and camera/darkroom/computer manipulation. Both individual field and studio situations are experienced and student-initiated. Problem solving projects are initiated through research. Students individually prescribe their own situations, resolutions, assessment criteria, and evaluate their successes. A studio/darkroom fee is required. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Art teacher recommendation and Honors Photography III

ADVANCED PLACEMENT STUDIO ART
A630AP  Grade Level 11, 12  1 AP Credit
Advanced Placement Studio Art requires completion of one of the following portfolios - drawing portfolio or two dimensional design portfolio. All requirements for these portfolios are set forth by the College Entrance Exam Board. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to submit Advanced Placement Studio Art portfolio.
Prerequisite: Art teacher recommendation and Honors Studio Practice

ADVANCED PLACEMENT ART HISTORY
A631AP  Grade Level 11, 12  1 AP Credit
Advanced Placement Art History includes the study of non-European traditions, ancient through medieval and Renaissance periods to the present. It is highly recommended that students successfully complete prior course(s) in history and/or the humanities. All aspects of art are studied including, but not limited to, traditional fine arts, crafts and folk art, art of many cultures, and architecture. The requirements and curriculum for this course are set forth by the College Entrance Exam Board. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Art History exam.
Prerequisite: Previous fine arts credit
STUDIO PRACTICE PHOTOGRAPHY
A632  Grade Level 11, 12  1 Credit
Studio Practice Photography may be taken in conjunction with Art II through Art IV and/or Photography II through Photography IV. As with Studio Practice Art, this course is designed for students to pursue special visual art interests unique to the photomechanical art processes. Students must complete a maximum of four specialized tasks designed in consultation with their art teacher. Special permission may be granted by the art teacher for first year Art/Photography students to take this course. Note: This course may be taken more than once. A studio/darkroom fee is required.
Prerequisite: Art teacher recommendation and Art I or Photography I

IB VISUAL ARTS (PART 1) (HL, SL)
A633IB  Grade Level 11, 12  1 IB Credit
IB Visual Arts at North Hagerstown High School provides students with opportunities to make meaningful personal, sociocultural, and aesthetic experiences through the production and understanding of art. The course exemplifies and encourages an inquiring and integrated approach towards visual arts in their various historical and contemporary forms and promotes visual and contextual knowledge of art from various cultures. IB Visual Arts also encourages the pursuit of quality through experimentation and purposeful creative work in various expressive media and enables students to learn about themselves and others through individual and, where appropriate, collaborative engagement with the visual arts. IB Visual Arts (Part 1) provides students the opportunity to develop their creative and imaginative abilities.

IB VISUAL ARTS (PART 2) (HL)
A634IB  Grade Level 11, 12  1 IB Credit
IB Visual Arts (Part 2) at North Hagerstown High School continues the study of Part 1 for students wishing to pursue IB Visual Arts at the Higher Level (HL). This course is for students who have exceptional desires, ability, and commitment to art and who may want to pursue visual arts at the university or college level. Each student will choose a path of Standard Level A (SLA) or Standard Level B (SLB) to complete this course. The majority of SLA focuses on practical exploration and artistic production, and completion of the SLA Research Workbook (RWB) is a requirement. SLB is a course for students whose interest in art is mainly critical, cultural, and historical. The SLB Research Workbook (RWB) demonstrates independent critical research and analysis, visual and written, of more than one culture. The SLB student is expected to complete practical exploration of artistic techniques. Students will take the IB Visual Arts Standard Level exam at the conclusion of this course or continue into IB Visual Arts (Part 2). Students complete 168 hours of studio and 72 hours of Research Workbook work for the IB Visual Arts Higher Level and then take the IB Visual Arts Higher Level exam at the conclusion of the course. These courses will follow IB protocol for internal and external assessment. IB Visual Arts students formally present their art to the public in a gallery format. Students must complete all assessment requirements to receive IBO recognition for completing this course.

DANCE

DANCE I
A692  Grade Level 9, 10, 11, 12  1 Credit
Dance I is based on, but not limited to, traditional dance disciplines of ballet, modern dance, and jazz/hip hop. This course consists of rhythmic exercises to prepare the body for more advanced movements and foster good health through flexibility, strength, agility, breath control, coordination and proper alignment. The course also provides technical instruction using choreographed dance phrases and/or structured improvisations on various themes. Skills developed include poise, teamwork, design, and planning. The course culminates in the classes’ production of their own original choreographed dances.

DANCE II
A693  Grade Level 9, 10, 11, 12  1 Credit
Dance II continues the instructional sequence of Dance I. Students pursue additional work into historical and technical aspects of dance. Students build on their skills as choreographers. Dance II students are able to gain additional skills in their chosen areas of expertise through the various curricular and extracurricular productions.
Prerequisite: Dance I

HONORS DANCE III*
A694H  Grade Level 10, 11, 12  1 Credit
Honors Dance III reinforces the instructional sequence of Dance II. This course is offered to students who have successfully completed Dance I and II. Dance III is intended for students who are seriously considering a career in dance or dance education. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Dance I, II, and Dance teacher recommendation

HONORS DANCE IV*
A695H  Grade Level 11, 12  1 Credit
Honors Dance IV is offered to students who have successfully completed Dance I, II, and III. There is a required audition and teacher recommendation for this class. This course enhances the skills used in dance production and provides an opportunity for students to demonstrate mastery of all dance areas. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Dance I, II, III, audition, and Dance teacher recommendation
THEATRE

DRAMA I
A641 Grade Level 9, 10, 11, 12 1 Credit
Drama I provides students with the opportunity to learn the fundamentals of stage acting and stage productions. In the process, students learn to become comfortable presenting in front of a “live” audience while developing presentational and personal understandings that build self-confidence. Students will also develop an understanding of the individuals, works, and historical influences that have shaped the 21st Century Theater.

DRAMA II
A642 Grade Level 9, 10, 11, 12 1 Credit
Drama II provides opportunities for the student to expand upon the ideas learned in Drama I. Theater II. Students are expected to develop skills in set design, lighting, stage management, writing, acting, and improvisational exercises. Students will also read and analyze theatrical works that span the history of Theater.

DRAMA III
A643H Grade Level 10, 11, 12 1 Credit
Drama III provides students the opportunity to develop leadership skills and individual interests/pursuits. Students are expected to lead, present, act in, and direct theatrical productions. Students should begin developing group and individualistic goals and skills in the technical and artistic fields of theaters. Students will continue to read and study theatrical works that span the history of Theater, while establishing a written voice of their own.

DRAMA IV
A644H Grade Level 11, 12 1 Credit
Drama IV provides students with the opportunity to pursue individual goals and program-based goals. Students are expected to design, lead, and direct peers in stage productions. Students will continue to develop individual acting skills and will guide acting novices through the acting process. Students will compose original script for stage production and/or film acting.

DRAMA V
A645H Grade Level 12 1 Credit
Drama V provides students who are considering a career in Theater or Technical Theater the opportunity to pursue individual goals or projects as approved by the instructor. Students are expected to design, lead, direct, and implement stage productions and/or films. Students will also compose and implement original scripts for stage production or film acting.

HONORS MUSICAL THEATRE/PIT ENSEMBLE
A679H Grade Level 9, 10, 11, 12 1 Credit
Honors Musical Theatre/Pit Ensemble is designed to promote interest and educational experience in the understanding and production of musical theatre while offering support by adding live music to the school productions. It incorporates the following aspects of theatre: 1) literature and history of music theatre, 2) theatre music performance techniques, and 3) sight reading and rehearsal through original musical arrangements. Auditions are required. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

GENERAL MUSIC

GUITAR LAB I
A662 Grade Level 9, 10, 11, 12 1 Credit
Guitar Lab I is a course for students interested in learning fundamentals of basic guitar playing. Students are expected to learn to read music, both by playing a chordal accompaniment to melodic lines and by reading appropriate guitar melodies.

GUITAR LAB II
A664 Grade Level 9, 10, 11, 12 1 Credit
Guitar Lab II is designed for students interested in furthering their development of guitar skills. Material covered in Guitar I are reviewed. Guitar II covers goals and objectives of Guitar I in greater depth.
Prerequisite: Guitar I or recognition from the teacher for previous experience.

HONORS GUITAR LAB III
A666H Grade Level 10, 11, 12 1 Credit
Honors Guitar Lab III is designed for advance study and is highly recommended for students interested in guitar performance.
Prerequisite: Guitar II or recognition from the teacher for previous experience. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
CREATIVE SONGWRITING
A668 Grade Level 9, 10, 11, 12 1 Credit
Creative Songwriting is designed to promote interest and educational experience in the understanding and production of musical compositions. Students will become proficient in writing lyrics and understanding the musical form of a song. Students will focus on playing and utilizing basic chord patterns by means of guitar or piano. The course will cover the historical side of the art by studying famous songwriters, songwriting teams, and songs from the past decades. Students will perform their own creations.

RHYTHM LAB
A669 Grade Level 9, 10, 11, 12 1 Credit
Rhythm Lab is a course for students interested in learning fundamentals of basic rhythmic concepts. Students are expected to learn to read and perform music through the use of percussion and ethnic instruments.

STRING LAB
A670 Grade Level 9, 10, 11, 12 1 Credit
String Lab is for students interested in learning fundamentals of basic string instruments. Students will receive basic group instruction on the violin. Students are expected to learn to read and perform music by playing the violin. No formal experience is necessary. Class size is limited according to available instruments.

MUSIC FUNDAMENTALS I
A672 Grade Level 9, 10, 11, 12 1 Credit
Students will learn basic music theory to develop an understanding of fundamental melodic, harmonic and rhythmic notation. Students will learn oral skills using the solfege method. Included in the course of study will be sight-singing exercises, nulodic and harmonic analysis. The course will also provide basic piano instruction as needed.

ADVANCED PLACEMENT MUSIC THEORY
A672AP Grade Level 11, 12 1 AP Credit
Advanced Placement Music Theory involves concentration in aural, sight singing, written, compositional and analytical skills, mastery of notation, intervals, scales and keys, chords, metric organization, and rhythmic patterns. Progression/expectations include composition of a bass line for a given melody (implying appropriate harmony), realization of a figured bass, analysis of repertoire, study of motivic treatment, examination of rhythmic and melodic interaction between parts of a composition, modulation to closely related keys, and phrase structure. Performances/recitals are required. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students are expected to take the Advanced Placement Music Theory exam.
Prerequisite: Band/orchestra/choral director recommendation

TWENTIETH CENTURY MUSIC
A677 Grade Level 9, 10, 11, 12 1 Credit
Twentieth Century Music is a study of 20th century music with an emphasis on American culture. It is recommended for non-performing students who enjoy studying and listening to all styles of music. Students complete written assignments and tests to earn credit. A scope and sequence is used to direct instruction.

PIANO LAB I
A682 Grade Level 9, 10, 11, 12 1 Credit
Piano Lab I is for students interested in learning fundamentals of basic keyboard. Students are expected to learn to read music, both by playing a chordal accompaniment to melodic lines and by reading appropriate piano melodies.

PIANO LAB II
A684 Grade Level 9, 10, 11, 12 1 Credit
Piano Lab II is designed for students interested in furthering their development of piano skills. Material covered in Piano Lab I are reviewed. Piano Lab II covers goals and objectives of Piano Lab I in greater depth.
Prerequisite: Piano Lab I or recognition from the piano teacher for previous experience

HONORS PIANO LAB III
A685H Grade Level 10, 11, 12 1 Credit
Honors Piano Lab III is designed for students interested in advanced study of piano skills and repertoire. Piano Lab II skills are reviewed. An individualized course of study is developed for students enrolled in this class. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Piano teacher recommendation

MUSIC STUDIO PRACTICE
A686 Grade Level 10, 11, 12 1 Credit
Music Studio Practice may be taken as an additional course or in conjunction with Guitar Lab, Piano Lab, and Music Theory. Teachers work with students individually or in small groups, utilizing an Independent Student Program (ISP) or contract, to accommodate the students’ needs and interests. Course content (ISP) requires production/skill development, research, exploration of educational/career options, and recital/performance in a chosen area of concentration and/or College Entrance Exam Board (CEEB) approved curriculum for Music Theory.
Prerequisite: Music teacher recommendation
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<th>Course Name</th>
<th>Grade Level</th>
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<td>A688H</td>
<td>Honors Music Studio Practice</td>
<td>11, 12</td>
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<td>A691IB</td>
<td>IB Music (Part 1)</td>
<td>11, 12</td>
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<td>A692IB</td>
<td>IB Music (Part 2)</td>
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<td>A657H</td>
<td>Honors Advanced Chorus</td>
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<td>Chorus</td>
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<td>A673</td>
<td>Women's Ensemble</td>
<td>9, 10, 11, 12</td>
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**HONORS MUSIC STUDIO PRACTICE**

Honors Music Studio Practice is for advanced students in either choral or instrumental music. This course involves concentrated study in a specific music area of interest (e.g., band, symphonic, ragtime, blues, jazz, choral, madrigal, etc.). Course content (ISP) requires production/skill development, research, exploration of educational/career options, and recital/performance in a chosen area of concentration and/or College Entrance Exam Board (CEEB) approved curriculum for Music Theory. Students use this course in preparation for AP Music Theory. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

**Prerequisite:** One music credit and teacher recommendation

**IB MUSIC (PART 1)**

IB Music (Part 1), offered only at North Hagerstown High School, is the first course in the IB Music sequence in preparation for IB Music Standard Level – Creating, IB Music Standard Level – Solo Performing, IB Music Standard Level – Group Performing, or IB Music High Level exam. This course provides students with the appropriate musical terminology to describe and reflect their critical knowledge, understanding and perception of music in relation to time, place, and cultures. Students demonstrate their creative skills through exploration, control, and development of musical elements while enhancing critical-thinking skills through reflection. Students begin to explore music composition by arranging musical piece for performance.

**Prerequisite:** The ability to read music is required to enroll in the course

**IB MUSIC (PART 2)**

IB Music (Part 2), offered only at North Hagerstown High School, is the concluding course in the IB Music sequence in final preparation for IB Music Standard Level – Creating, IB Music Standard Level – Solo Performing, IB Music Standard Level – Group Performing, or IB Music High Level exam. This course continues the study of musical terminology to describe and reflect their critical knowledge, understanding and perception of music in relation to time, place, and cultures. Students demonstrate their creative skills through exploration, control, and development of musical elements while enhancing critical-thinking skills through reflection. Students must create and perform a music composition as well as perform as a soloist or with an ensemble. Student must complete all assessment requirements to receive IBO recognition for completing this course.

**Prerequisite:** IB Music (Part 1)

**VOCAL MUSIC**

(Vocal courses may be repeated for credit.)

**HONORS ADVANCED CHORUS**

Honors Advanced Chorus is designed for vocal development and choral performance. It is intended to make vocal music an integral part of the student's daily experience. Students study a wide variety of musical literature of many periods of musical history, vocal styles, and develop more fully through active participation. Auditions may be required. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

**CHORUS**

Chorus is designed to make vocal music an integral part of the student's daily experience. It is a functional and creative approach, which develops a program of singing activities, and exploratory experiences through various ensembles, as well as provide a basis for developing a cultural background. It is intended to accommodate all students who wish to elect choral singing.

**WOMEN'S ENSEMBLE**

Women's ensemble allows students to refine their vocal skills in the highly demanding small ensemble treble setting. Students sing a variety of music written for female vocal ensembles, often without accompaniment. Students learn and practice advanced music reading skills and gain an increased understanding of music theory. They use critical listening skills to evaluate and refine their performances. The ensemble offers leadership opportunities for student conductors and soloists. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

**Prerequisite:** Choral director recommendation
CREATIVE MUSIC TECHNOLOGY 1  
A674  
1 Credit  
The course will introduce the student to professional-level computer music software and hardware. Students will gain experience using notation, sequencing, theory, and recording software. Students will create original works, as well as modeling real-world music technology applications.

HONORS SHOW CHOIR*  
A687H  
Grade Level 9, 10, 11, 12  
1 Credit  
Honors Show Choir presents a positive, exciting, educational experience for both performers and audience in the following musical styles: Pop, Show, and Jazz. The students are required to develop a final performance, which incorporates singing, dancing, acting, costuming, and staging. Auditions required. Public performances during and after school may be required to meet course objectives. Juniors and seniors may earn Accelerated Credit for this course. Students will be expected to complete challenging assignments above grade level, both in and out of class.

HONORS CHAMBER CHOIR/ENSEMBLE*  
A690H  
Grade Level 9, 10, 11, 12  
1 Credit  
Honors Chamber Choir/Ensemble allows exceptional choral students to refine their vocal skills in the highly demanding small ensemble setting. Students sing a variety of music written for small vocal ensembles, often without accompaniment. Students learn and practice advanced music reading skills and gain an increased understanding of music theory. They use critical listening skills to evaluate and refine their performances. The ensemble has a very active performing schedule and offers leadership opportunities for student conductors and soloists. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.  
Prerequisite: Choral director recommendation

INSTRUMENTAL MUSIC  
(Instrumental courses may be repeated for credit.)

BEGINNING BAND  
A650  
Grade Level 9, 10, 11, 12  
1 Credit  
Beginning Band offers students with no prior instrumental music experience an opportunity to participate in a school band. Students develop basic instrumental skills through the study of musical materials (from a variety of countries, melodies of master composers, and contemporary popular music). The cultural context of the music and its historical significance are studied as they relate to performance. The elements of musical form, terms and symbols, tone production, instrument care and maintenance, and the importance of effective and consistent practice habits are learned. The development of technical skills necessary to perform Grade I to II music is stressed.

HONORS BAND - ADVANCED*  
A651H  
Grade Level 9, 10, 11, 12  
1 Credit  
Honors Advanced Band provides students with the opportunity to develop and refine technical skills that enable them to perform music at the Grade III to VI level of difficulty. Students continue to experience appropriate repertoire from all historical periods. Basic skills in transposition, melodic dictation, and the study and performance of triads are included. Written projects in the areas of music history, performance critiques, and musical composition may be used. The importance of consistent and effective practice habits continues to be stressed. Additional experiences may be offered in solo and chamber music performance, pep band, and marching band. Public performances during and after school hours may be required to meet course objectives. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.  
Prerequisite: General Band, audition, and Band director recommendation

BAND  
A655  
Grade Level 9, 10, 11, 12  
1 Credit  
Band students develop and refine their technical skills that enable them to perform music at the Grade II to III level of difficulty. Students learn the social, cultural, and intellectual influences from the historical periods reflected in the musical works being studied. The study of music theory includes performance and recognition of major scales, diatonic and chromatic interval, and simple melodic dictation. The importance of consistent and effective practice habits continues to be stressed. Exploratory experiences may be offered in solo and ensemble performance. Public performances during and after school hours may be required to meet course objectives.

JAZZ ENSEMBLE  
A667  
Grade Level 9, 10, 11, 12  
1 Credit  
Jazz Ensemble gives students of demonstrated ability the opportunity and experience of performing the stage-jazz ensemble literature of the past and present. Students become acquainted with the various periods, performers, styles of jazz, and basic styles of jazz improvisation.  
Prerequisite: Band director recommendation
HONORS JAZZ ENSEMBLE*  
A667H  Grade Level 9, 10, 11, 12  1 Credit
Honors Jazz Ensemble gives students of demonstrated ability the opportunity and experience of performing the stage-jazz ensemble literature of the past and present. Students learn about the various periods, performers, styles of jazz, and basic styles of jazz improvisation. They extend their technical range and develop specialized skills of jazz phrasing, interpretation, and improvisation necessary to perform the literature for this ensemble. The importance of consistent and effective practice habits is stressed. Members of the jazz ensemble are some of the most proficient performers in their school and demonstrate a willingness to participate in other instrumental ensembles within the school. Public performances during and after school hours may be required to meet course objectives. This course is available for dual enrollment. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Audition

VOCAL JAZZ ENSEMBLE  
A676  Grade Level 9, 10, 11, 12  1 Credit
Vocal Jazz Ensemble gives students of demonstrated ability the opportunity and experience of performing a wide variety of jazz literature as soloists and ensemble members. Students become acquainted with the various periods, performers, styles of jazz, and basic styles of jazz improvisation. Auditions required. Public performances during and after school may be required to meet course objectives.
Prerequisite: Choral director recommendation

HONORS VOCAL JAZZ ENSEMBLE  
A676H  Grade Level 9, 10, 11, 12  1 Credit
Honors Vocal Jazz Ensemble gives students of demonstrated ability the opportunity and experience of performing a wide variety of jazz literature as soloists and ensemble members. Students become acquainted with the various periods, performers, styles of jazz, and basic styles of jazz improvisation. They extend their technical range and develop specialized skills of jazz phrasing, interpretation, and improvisation necessary to perform the literature for this ensemble. The importance of consistent and effective practice habits is stressed. Members of the vocal jazz ensemble are some of the most proficient vocal performers in their school and must demonstrate a willingness to participate in other choral ensembles within the school. Public performances during and after school hours may be required to meet course objectives. This course is available for dual enrollment. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: Audition

BEGINNING ORCHESTRA  
A678  Grade Level 9, 10, 11, 12  1 Credit
Beginning Orchestra offers students with no prior instrumental music experience an opportunity to enroll in a school orchestra. Students develop basic instrumental skills through musical materials from a variety of countries, melodies of master composers, and contemporary popular music. The cultural context of the music and its historical significance are discussed as they relate to performance. The elements of musical form, terms and symbols, tone production, instrument care and maintenance, and the importance of effective and consistent practice habits are presented. The development of technical skills necessary to perform Grade I and II music is stressed. Public performances during and after school hours may be required.

HONORS SYMPHONIC ORCHESTRA*  
A680H  Grade Level 9, 10, 11, 12  1 Credit
Honors Symphonic Orchestra students develop and refine advanced technical skills that enable them to perform music at the Grade IV to VI level of difficulty. Analysis of the repertoire provides students with an understanding of contemporary musical forms and styles. More advanced harmonic dictation, transposition, and experiences at musical composition and/or arranging is included. The importance of consistent and effective practice habits continues to be stressed. Additional experiences may include conducting, full symphony orchestra, chamber and solo performance, and musical theatre orchestra. Public performances during and after school hours may be required to meet course objectives. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expected to complete challenging assignments above grade level, both in and out of class.
Prerequisite: General Orchestra, audition, and Orchestra director recommendation

ORCHESTRA*  
A681  Grade Level 9, 10, 11, 12  1 Credit
Orchestra students develop and refine their technical skills that enable them to perform music at the Grade II to IV level of difficulty. Students learn the social, cultural, and intellectual influences from the historical periods reflected in the musical works being discussed. The study of music theory includes performance and recognition of major scales, diatonic and chromatic intervals, and simple melodic dictation. The importance of consistent and effective practice habits continues to be stressed. Exploratory experiences may be offered in solo and ensemble performance. Public performances during and after school hours may be required to meet course objectives.
Health Education/Life Skills meets the Maryland Health Education graduation requirement and only Physical Education I meets the Maryland graduation requirement for Physical Education.
HEALTH

HEALTH EDUCATION/LIFE SKILLS/FINANCIAL LITERACY
A730  Grade Level 10  1 Health Credit
This course focuses on the prevention of disease, the promotion of health and wellness, and the development of survival and decision-making skills needed to gain independence and to function in an adult role. The Health Education component emphasizes making healthful decisions; promoting healthful life-styles; practicing safety, prevention, and first aid; developing a positive self-concept; preventing substance abuse; choosing health products, services and resources; and preventing and controlling disease. The Life Skills component includes the topics of human growth and development, interpersonal relationships, career choices. The financial literacy component includes consumer decision-making, financial awareness, saving and investments, and loan and debt management. A student service learning (SSL) project is part of this course. Students must complete the SSL project to earn 15 hours toward the graduation requirement.

NUTRITION AND WELLNESS
A732SM  Grade Level 10, 11, 12  1 Elective Credit
Nutrition and Wellness is a one-semester elective course provides students with an overview of good nutrition principles that are necessary for overall wellness and a healthy life. Instructional strategies include discussions of digestion, basic nutrients, weight management, food safety, fitness and life-span nutrition. The Nutrition and Wellness course emphasizes an understanding of today’s food and eating trends and gives students the capacity to intelligently evaluate all available sources of nutrition information and make informed decisions. Unit topics include a course introduction, wellness and food choices in today’s world, digestion and major nutrients, and body size and weight management.
Prerequisite: Health Education/Life Skills/Financial Literacy

PHYSICAL EDUCATION

MARYLAND STATE DEPARTMENT OF EDUCATION CLARIFICATION ON WAIVER OF THE PHYSICAL EDUCATION GRADUATION REQUIREMENT
The Maryland State Board of Education regulation on graduation requirements does not provide the ability to waive the physical education credit requirement. However, there are modifications one may need to make based on physical limitations or handicapping conditions.

Students may participate in a modified program of physical education based upon individual needs. This would require an individual program to be adapted to assist students with any modification necessary. This program would have to be approved by the physical education teacher or supervisor.

In Washington County Public Schools students with physical limitations or handicapping conditions will receive a physical education instructional program based on the medical information provided by the student’s attending physician and/or certifying medical agency/provider and in consultation with the student’s regular physical education teacher and/or the adaptive physical education teacher assigned to the student.

For additional information regarding the adaptive physical education program, please call the Supervisor of Physical Education at 301.766.2929.

Required Course: PHYSICAL EDUCATION I (A702)

Elective Courses: Team Sports Path
PHYSICAL EDUCATION II (A704)
PHYSICAL EDUCATION III (A706)
PHYSICAL EDUCATION IV (A708)

Elective Courses: Fitness Path
PHYSICAL EDUCATION - WEIGHT CONDITIONING (A712)
PERSONAL/LIFE FITNESS (A738)
AEROBICS/FITNESS (A740)
PHYSICAL EDUCATION I
A702  Grade Level 9  1 Physical Education Credit

Physical Education I, sometimes referred to as Introduction to Lifetime Sports and Fitness, is designed to provide students with experiences that they can use as lifetime recreational activities and as a continuing fitness program. The course allows students to experience lifetime activities and team sports, while incorporating fitness elements into every class period. The course consists of activities such as: archery, badminton, basketball, bowling, cross country, flag football, golf, shuffleboard, soccer, softball, table tennis, track and field, volleyball, field hockey, flickerball, mass games, rhythms, speedball, and other fitness activities. This course is suggested for Grade 9 students and it meets the state graduation requirement.

PHYSICAL EDUCATION II
A704  Grade Level 9, 10  1 Elective Credit

Physical Education II is an elective physical education course that provides supplemental enrichment experiences which contribute to the total development of an individual. Students have an opportunity to engage in a wide variety of activities and skills that primarily are lifetime sports, team sports, and physical fitness. This course does not meet state graduation requirement.
Prerequisite: Physical Education I

PHYSICAL EDUCATION III
A706  Grade Level 10, 11, 12  1 Elective Credit

Physical Education III is an elective physical education course that expands the supplemental and enrichment experiences in Physical Education II. Activities included in this course are lifetime sports, team sports, and physical fitness. This course does not meet the state graduation requirement.
Prerequisite: Physical Education II

PHYSICAL EDUCATION IV
A708  Grade Level 10, 11, 12  1 Elective Credit

Physical Education IV expands the supplemental and enrichment experiences in Physical Education III that contribute to the students’ total physical development. Students have opportunities to engage in a wide variety of activities, knowledge, and skills related to exercise sports, that include lifetime sports, team sports, and physical fitness. This course does not meet the state graduation requirement.
Prerequisite: Physical Education III

PHYSICAL EDUCATION - WEIGHT CONDITIONING
A712  Grade Level 9, 10, 11, 12  1 Elective Credit

Physical Education - Weight Conditioning is an elective course designed to provide students with extensive exposure to weight training, body conditioning, and fitness-related activities in order to build muscular strength and enhance personal fitness. Activities include weight lifting and weight training, use of free weights and weight machines, flexibility and strength exercises, and cardiovascular conditioning. Enrollment in this course is limited as determined by each school’s facility and equipment. This course does not meet the state graduation requirement.
Prerequisite: Physical Education I

ADAPTIVE PHYSICAL EDUCATION
A720  Grade Level 9, 10, 11, 12  1 Elective Credit

Adaptive Physical Education enables students with special needs to participate successfully in physical education classes and meet the state graduation requirement. This course includes activities that develop and/or enhance gross and fine motor skills, locomotor movements, endurance, muscular strength, and coordination.

PERSONAL/LIFE FITNESS
A738  Grade Level 9, 10, 11, 12  1 Elective Credit

Personal/Life Fitness is an elective physical education course that provides experiences and includes the fundamental and current topics in physical fitness, diet, exercise, and stress. The goal of the course is to encourage students to acquire knowledge of physical fitness concepts, develop an individual optimum level of physical fitness, and understand the significance of life-style on one’s health, personal fitness and well-being. Students learn how to assess their own health and fitness levels, then design their own personal fitness programs by incorporating a variety of lifetime activities such as badminton, table tennis, tennis, as well as various forms of fitness activities such as aerobics, dancing, and strength training. Students also develop weekly fitness plans based on nutrition and exercise. Enrollment in this course is limited as determined by each school’s facility. This course does not meet the state graduation requirement.
Prerequisite: Physical Education I

AEROBICS/FITNESS
A740  Grade Level 9, 10, 11, 12  1 Elective Credit

Aerobics/Fitness includes activities that are beginning and intermediate level aerobics and step aerobics. Students incorporate a variety of movements to music that are incorporated into routines that enhance flexibility, muscle tone, and cardiovascular efficiency. Enrollment in this course is limited as determined by each school’s facility. This course does not meet the state graduation requirement.
Prerequisite: Physical Education I
The IB course in sports, exercise and health science standard level (SL) is a group 4 elective course that may be taken to fulfill the group 6 requirement for the IB Diploma. This course involves the study of the science that underpins physical performance. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology, and nutrition. Students cover a range of topics and carry out practical (experimental) investigations in both laboratory and field settings. This provides an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyze human performance. Where relevant, the course will address issues of international dimensions and ethics by considering sport, exercise, and health relative to the individual in a global context. Students will complete the required internal assessments and take the IB sports exercise and health science exam at the end of the course.
Career and Technology Education

Course Descriptions

Career and Technology Education (CTE) prepares both youth and adults for a wide range of careers. These careers require varying levels of education, from high school and post-secondary certificates, to apprenticeships, or two- and four-year college degrees. Students add value to their overall education by completing CTE programs of study that provide opportunities to earn industry-recognized credentials and college credit while still in high school. Washington County Public Schools offers Career and Technology Completer programs in all ten (10) of the identified Maryland Career Clusters.
SCHOOL-BASED
CAREER TECHNOLOGY COMPLETER PROGRAMS

ARTS, MEDIA AND COMMUNICATION
Interactive Media Production Completer
    North Hagerstown and South Hagerstown High
Computer Game Development and Animation I and II
    Washington County Technical High
Digital Communications I and II
    Washington County Technical High
Multimedia and Graphic Design I and II
    Washington County Technical High

BUSINESS MANAGEMENT AND FINANCE
Software Specialist Completer
    Boonsboro, Clear Spring, Hancock, Smithsburg, South Hagerstown, and Williamsport High
Business Management Completer
    Hancock, South Hagerstown, and Williamsport High
Finance and Accounting Completer
    Boonsboro, Hancock, Smithsburg, South Hagerstown, and Williamsport High
Marketing
    Boonsboro, Clear Spring, Hancock High
The Academy of Finance
    Williamsport High

CAREER RESEARCH AND DEVELOPMENT
Career Research and Development Completer
    Boonsboro, Clear Spring, Evening High, North Hagerstown, Smithsburg, South Hagerstown, and Williamsport High

CONSTRUCTION AND DEVELOPMENT
NCCER Carpentry Completer
    Boonsboro, Hancock, and South Hagerstown High
Construction Design and Management Completer
    Boonsboro, South Hagerstown, and Williamsport High
Carpentry I and II
    Washington County Technical High
Electrical Construction I and II
    Washington County Technical High

CONSUMER SERVICES, HOSPITALITY AND TOURISM
Food and Beverage Management Completer
    North Hagerstown and South Hagerstown High
Hospitality and Tourism Management
    North Hagerstown High
Cosmetology I and II
    Washington County Technical High
Culinary Arts I and II
    Washington County Technical High

ENVIRONMENTAL, AGRICULTURAL AND NATURAL RESOURCE SYSTEMS
General Agriculture Completer
    Boonsboro, Clear Spring and Smithsburg High
Horticulture Completer
    Boonsboro, Clear Spring, and Smithsburg High
Curriculum for Agriculture Science Education (CASE)
    Hancock and Smithsburg High

HEALTH AND BIOSCIENCES
Academy of Biomedical Sciences PLTW
    Washington County Technical High
Academy of Health Professions
    Washington County Technical High
HUMAN RESOURCES SERVICES
   Early Childhood Professions I and II
      Washington County Technical High
   Homeland Security & Emergency Preparedness Completer
      South Hagerstown and Washington County Technical High
   Homeland Security Global Imaging and Communication Technology
      Washington County Technical High
   Fire and Rescue Academy
      Washington County Technical High
   Childcare Guidance and Management
      Clear Spring, Hancock, North Hagerstown, South Hagerstown, and Williamsport High
   Teaching Academy
      North Hagerstown and South Hagerstown High

INFORMATION TECHNOLOGY
   Oracle Academy
      South Hagerstown High
   Computer Science
      Boonsboro, Clear Spring, Hancock, North Hagerstown, Smithsburg, South Hagerstown, and Williamsport High
   PLTW Computer Science
      Williamsport High
   CISCO Information Technology Academy
      Washington County Technical High

MANUFACTURING AND ENGINEERING TECHNOLOGY
   Pre-Civil Engineering and Architecture I and II PLTW
      Washington County Technical High

TRANSPORTATION TECHNOLOGIES
   Automotive Technology I and II
      Washington County Technical High
   Collision Repair I and II
      Washington County Technical High

MSDE POS @ www.mdcteprograms.org
PROGRAMS OFFERED AT THE
WASHINGTON COUNTY TECHNICAL HIGH SCHOOL

KEY INFORMATION

- Washington County Technical High School, one of Washington County’s eight high schools, has a career and technology focus. Juniors and seniors complete all their academic and technology studies at Washington County Technical High School. **To be eligible to attend students must complete their 9th and 10th grade required courses and have earned the following 12 credits:** 2-English, 1-Algebra 1-Geometry, 2-Science, 2-Social Studies (US Studies II and Government), 1-Health/Life Skills, 1-Fine Arts, 1-Physical Education credit, and Foundations of Technology. Students must be selected from the competitive application process. Administration has the final decision for acceptance.

- Graduates will participate in Washington County Technical High School graduation exercises and may also choose to participate with their community school. Students participating in graduation ceremonies at Washington County Technical High School and their community schools will receive their Washington County Technical High School diplomas at their community schools.


- Honors and Advanced Placement courses are available.

- Students will have the opportunity to participate in athletics at their community schools.

- Senior cosmetology students must attend summer school or Evening High School to receive their fourth English credit and/or other academic credits needed for graduation.

- Juniors and seniors are permitted to drive to Washington County Technical High School. Seniors participating in internships have priority on parking spaces.

- Students may attend activities at their community schools as long as participation does not conflict with their Washington County Technical High School commitments and permission has been received from the community school administration.

- Senior Options: In addition to their academics and career and technology programs, students may choose courses from Hagerstown Community College or participate in work-based learning. Special online Internet courses will also be available.

- Students who successfully complete identified Washington County Technical High School programs are eligible for college credits. Colleges grant articulated college credits for the courses completed in high school.

- Washington County Technical High School graduates are eligible for college entrance and other post-secondary educational opportunities.

- Hardworking, successful students position themselves for excellent salaries, apprenticeships, scholarships, and excellent career opportunities.

- Support staff is available to assist in the success of all students.
University System of Maryland
The Board of Education of Washington County certifies that the following courses meet the minimum requirements for students seeking admission to institutions in the University System of Maryland. Additional advanced courses are recommended.

Writing, Reading, and Literature - 4 credits
   English or Honors English I to IV (including AP/IB)
History, Social Science - 3 credits
   United States Studies II
   Local, State, National Government
   World History
Science (Lab-based) - 3 credits
   Biology
   Chemistry
   Integrated Physics & Chemistry
   Physics
   Anatomy and Physiology
   Earth and Space Science
World Languages - 2 credits of one language
Mathematics - 4 credits total - 3 of which must be the following: Algebra I, Geometry, Algebra II
   A senior level mathematics course is required and must include a course or courses that utilize non-trivial Algebra such as Introduction to AP Statistics, Honors Pre-Calculus/Trigonometry, Honors Calculus, AP Statistics and College Algebra.

Career Technology Education Completer Programs
The following Career Technology Education Completer Programs meet the Maryland graduation completer program requirement. The course sequences listed for each completer program must all be completed to earn completer program credit. Students on track to be a CTE completer are required to take identified program certification exam(s).

Arts, Media and Communication
   Interactive Media Production - 4 credit
   CIP 100304
   Principles of Multimedia - 1 credit
   Interactive Multimedia Production - 1 credit
   Advanced Interactive Media Production - 2 credits

Business Management and Finance Completer Programs
   Software Specialist – 4 Credits
   CIP 520451
   Principles of Business Administration and Management
   Principles of Accounting and Finance
   Office Systems - Word
   Office Systems - Excel

   Business Management Completer – 4 Credits
   CIP 520251
   Principles of Business Administration and Management
   Principles of Accounting and Finance
   Advanced Business Management
   Business Management Capstone

   Finance and Accounting Completer – 4 Credits
   CIP 520451
   Principles of Business Administration and Management
   Principles of Accounting and Finance
   Accounting and Finance II
   Accounting and Finance III

   Marketing Completer – 4 Credits
   CIP 521451
   Principles of Business Administration and Management
   Principles of Accounting and Finance
   Marketing I
   Marketing II

To earn a high school diploma students are required to complete the requirements for a University System of Maryland completer or a Career Technology completer. It is recommended that students complete the requirements for both a University System of Maryland and Career Technology completer. Students must complete the University System of Maryland completer course requirements for admission to University System of Maryland Colleges.
**Career Research and Development Completer**

CIP 860000  
Career Research and Development - 1 Credit  
Career Development Seminar - 1 Credit  
Work-base Learning Experience - 2 Credits

**Construction and Development**

*NCCER Carpentry Completer - 4 Credits*  
CIP 460250  
Carpentry Youth Apprenticeship I and II

*Construction Design and Management Completer - 4 Credits*  
CIP 151350  
Introduction to Construction Design and Management  
Principles of Construction Design  
Advanced Design and 3-D Modeling  
Advanced Construction Management

*Heating, Ventilation and Air Conditioning Completer - *Evening classes at Barr Construction Institute*  
CIP 470250  
HVAC I and II

*NCCER Plumbing Completer - *Evening classes at Barr Construction Institute*  
CIP 460550  
Plumbing I and II

**Consumer Services Hospitality and Tourism**

*Food and Beverage Management Completer - 4 Credits*  
CIP 520955  
Becoming a Food Service Professional I - 1 Credit  
Becoming a Food Service Professional II - 1 Credit  
Practical Experience as a Food Service Professional - 2 Credits

*Hospitality and Tourism Management - 4 Credits*  
520954  
Principles of Hospitality & Tourism  
Marketing I  
Hospitality & Tourism Management  
Hospitality & Tourism Internship

**Environmental, Agricultural and Natural Resource Systems**

*Curriculum for Agriculture Science Education (CASE) CIP 010050 - 4 Credits*  
Intro to Agriculture, Food, and Natural Resources  
Principles of Agriculture Science-Plant Science  
Animal and Plant Biotechnology  
Agriculture Business, Research, and Development

*General Agriculture Completer - 4 Credits*  
CIP 010301  
Agriculture Science  
Power Mechanics I and II  
Horticulture Science or Environmental Resource Management  
Optional: Internship or Independent Study by teacher approval only

*Horticulture Completer - 4 Credits*  
CIP 010601  
Agriculture Science  
Horticulture Science  
Greenhouse/Floral Design  
Nursery Landscape/Turf Management

*Natural Resources Completer - 4 Credits*  
CIP 010301  
Agriculture Science  
Environmental Resource Management  
Fish/Wildlife  
Forestry/Soils  
Optional: Internship or Independent Study by teacher approval only
Human Resources Services

Childcare Guidance and Management Completer - 4 Credits
CIP 200201
- Parenting and Family Dynamics
- Child Development
- Child Care Services
- Internship at Elementary or Middle School

Homeland Security & Emergency Preparedness - 4 Credits
CIP 430350
- Homeland Security I
- Homeland Security II - Research Methods & Applications
- Internship/Capstone Experiences

Information Technology

Computer Science Completer - 4 Credits
CIP 110250
- Foundations of Computer Science
- AP Computer Science Principles
- AP Computer Science A
- College-level Computer Science Course

CISCO IT Academy WCTHS

Computer Science Completer – 8 Credits
CIP 110950
- IT Essentials
- Cyber Security Essentials
- Linux Essentials
- Intro to Networks
- Routing and Switching Essentials

Manufacturing, Engineering and Technology

Machining Completer - 4 Credits
CIP 150603
- Introduction to Construction Design and Management
- Principles of Construction Design
- Machine and Metal Processing I
- Machine and Metal Processing II

Completer Programs Through Career Academies

The Academy of Finance at Williamsport High School
CIP 520354
(Career Technology Education Completer)

Required courses:
- Principles and Applications of Finance
- Principles of Accounting and Financial Reporting
- Finance Internship
- Financial Services
- Intro to Management, or Legal Environment of Business (Hagerstown Community College)

The Oracle Academy at South Hagerstown High School
(Career and Technology Education Completer)
CIP 110850

Required Courses:
- Database Design
- Database Programming I with SQL
- Database Programming II and III with PL/SQL
The Academy of Science, Technology, Engineering, and Mathematics (STEM) at Williamsport High School (Career Technology Completer)

Science
Honors Biology
Honors Chemistry
Honors Physics

Tech Ed
Introduction to Engineering Design (or grade 8)

Math
Honors Geometry
Honors Algebra II
Honors Pre-Calculus/Trigonometry

STEM Science Pathway
4 Honors/Advanced Placement Science Courses
Principles of Engineering
Engineering Design and Development

STEM Math Pathway
4 High School Honors/Advanced Placement Math Courses
Principles of Engineering
Engineering Design and Development

STEM Hybrid Pathway
1 Advanced Placement Science Course
1 Advanced Placement Math Course
Principles of Engineering
Engineering Design and Development

Aerospace Engineering PLTW
Principles of Engineering
Digital Electronics
Aerospace Engineering
Engineering Design and Development
Advanced Placement Calculus (recommended)
Advanced Placement Physics (recommended)

Mechanical Engineering PLTW
Principles of Engineering
Digital Electronics
Computer Integrated Manufacturing
Engineering Design and Development
Advanced Placement Calculus (recommended)
Advanced Placement Physics (recommended)

Possible Electives for any pathway (unless required)
Advanced Placement Calculus
Advanced Placement Statistics
Advanced Placement Chemistry
Advanced Placement Biology
Advanced Placement Physics
Advanced Placement Environmental Science
Any PLTW Course

* Programs available at the middle school result in some students arriving with math credits while others will need to take additional math at the high school to prepare them for the rigor of college programs in science, technology, engineering and mathematics. Students should be enrolled in Honors math and science courses whenever possible.
The Academy of Biomedical Sciences at Washington County Technical High School  
(Career Technology Education Completer)  
CIP 511150  
The Project Lead the Way® Biomedical Sciences™ program is a dynamic program using hands-on, real-world problems to engage and challenge students interested in math, science, and the human body. This program is appropriate for students interested in pursuing a career in biological sciences, emergency services, health care or medicine creating an exciting environment of biomedical techniques, anatomy and physiology, interventions to support life and treat disease as well as research. Additionally, students solve problems, participate as part of a team, lead team, conduct research, understand real-world problems, analyze data, and learn outside the classroom. Students enrolled in this academy must also be enrolled in college-preparatory mathematics and science courses. The Biomedical Sciences are not designed to replace the traditional science course, but are designed to enhance them and to focus on the concepts directly related to the field of Biomedical Sciences. This program is available at the Washington County Technical High School.

Required Courses:  
  Biomedical Science I: PLTW Principles of Biomedical Science and PLTW Human Body Systems  
  Biomedical Science II: PLTW Medical Interventions and PLTW Biomedical Innovations  
  Advanced Placement Chemistry (recommended)  
  Advanced Placement Physics (recommended)  
  Advanced Placement Calculus (recommended)  
  Honors Pre-Calculus/Trigonometry

This program requires enrollment at Washington County Technical High School (WCTHS) during the 11th and 12th grades.

The Academy of Health Professions at Washington County Technical High School  
(Career Technology Education Completer)  
Required Courses:  
  Academy of Health Professions I  
  Academy of Health Professions II

Engineering at Washington County Technical High School  
CIP 155000  
(Career Technology Education Completer)  
Required Courses:  
  Engineering: Introduction to Engineering Design and Principals of Engineering  
  Engineering II: Civil Engineering, Architecture and Engineering Design and Development

Academy of Teaching Professions at North Hagerstown High School  
CIP 130150  
(Career Technology Education Completer)  
Required Courses:  
  Human Growth and Development through Adolescence  
  Teaching as a Profession  
  Foundations of Curriculum and Instruction  
  Introduction to Education - Dual Enrollment at Hagerstown Community College  
  Teaching Professions Internship

Environmental Agricultural Science Academy at Clear Spring High School  
(Career Technology Education Completer)  
Core Courses (Prerequisites for both pathways)  
  Agricultural Capstone  
  Honors Biology or teacher recommendation  
  Biotechnology  
  Foundations of Environmental and Agricultural Science  
Animal Pathway  
CIP 010999  
  Agricultural Capstone  
  Production and Companion Animals  
  Veterinary Technology  
  Veterinary Internship

Environmental and Natural Resources Pathway  
CIP 030299  
  Agricultural Capstone  
  Aquatics and Wildlife  
  Forestry, Soils and the Environment
Fire and Rescue Academy at Washington County Technical High School
CIP 430250
(Career Technology Education Completer)

Enrollment in this program is open to 11th and 12th grade students from all county high schools.

Prerequisite: Member in good standing of a Washington County volunteer fire and/or rescue department or a mutual aid company and 16 years old at beginning of 11th grade.

Required Courses 2016-2017

- Firefighter Module
  - Hazardous Materials Operations
  - Firefighter I
  - Firefighter II
  - Engine Company Fireground Operations
  - Truck Company Fireground Operations
  - Incident Management System
  - Firefighter Survival and Rescue
  - Emergency Response to Terrorism: Basic Concepts

- Rescue/EMS Module 2017-2018
  - Hazardous Materials Operations
  - Emergency Medical Technician - Basic
  - Protective Envelope and Foam
  - Rescue Technicians - Site Operations and Vehicle/Machinery
  - Rescue
  - Emergency Response to Terrorism: Tactical Considerations
  - Basic Trauma Life Support
  - Responder Safety
  - Basic Life Support: Hazardous Materials

Barr Academy / Barr Construction Institute Plumbing or Heating, Ventilation, and Air Conditioning (HVAC)
(Career Technology Education Completer)

Enrollment in this program is open to 11th and 12th grade students from all county high schools, however, classes are held at the Barr Construction Institute, 530 N. Locust Street, Hagerstown. Depending on the time of classes students may be required to provide their own transportation to and from the Barr Academy.

Required Courses:

- Plumbing:
  - NCCER Core Battery (1 credit)
  - NCCER Level I (2 credits)
  - NCCER Level II (3 credits)
  - Optional: Internship (4 credits)

- HVAC:
  - NCCER Core Battery (1 credit)
  - NCCER Level I (2 credits)
  - NCCER Level II (3 credits)
  - Optional: Internship (4 credits)

ARTS, MEDIA AND COMMUNICATION

COMPUTER GAME DEVELOPMENT AND ANIMATION I
A982 Grade Level 11 4 Credits
The focus of the instructional program is to teach students the 16 components of computer game design through a team-centered, problem-solving instructional format. The 16 components include game concept development, business planning and finance, interactive storytelling, storyboarding, writing documentation, developing characters, 2-D graphics, 3-D graphics, developing tools, designing user interfaces, learning about game engines, programming, recording audio and video, testing games, marketing and publishing. Team members meet industry professionals through seminars presented in the tech area. Students build game related products. Available at WCTHS.

COMPUTER GAME DEVELOPMENT AND ANIMATION II
A983 Grade Level 12 4 Accelerated Credits
Using customer requirements, students plan, build, design, and produce published E-rated [Everyone], EC-rated [Early Childhood] and Serious Games products. Students pitch a game concept to business members. Once a game concept is approved, a team is selected. The game concept is planned in a Master Design Document (MDD) then built using software tools such as Game Maker or Adobe Flash MX with Actionscript. Students work on senior technology projects and also built a game-based product based on an educational or “Serious Game” topic. Serious game topics include solving social or political problems or military strategies. Team members meet industry professionals through seminars presented in the tech area. Students may earn articulated college credits. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

MULTIMEDIA AND GRAPHIC DESIGN LEVEL I
A994 Grade Level 11 4 Credits

MULTIMEDIA AND GRAPHIC DESIGN LEVEL II
A995 Grade Level 12 4 Accelerated Credits
The Visual Communications/Multimedia and Graphic Design program allows students to explore career options within the Arts, Media and Communications field. The students will gain knowledge and skills related to these career options. Using Adobe Creative Suite and other industry standard tools, students will gain experience in internet technology, website design, computer graphics for print and online media, concept development and project management. Students will also create two dimensional animations, layered images, streaming media, print publications and entry level three dimensional modeling. Students will create digital and traditional portfolios of their work in the Arts, Media and Communications career cluster. Students will prepare and take an identified industry level certification exam. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.
The Digital Communications program helps students master the tools of broadcast communications as employed by the news, marketing and entertainment industries. Students also learn advanced digital photography techniques used by wedding, fashion and product photographers. Students completing this program are well prepared for further education or employment in the broadcasting or photographic fields. This program includes the preparation and execution of television, corporate presentation and photographic productions in the studio and on location. Activities include writing, story-boarding, setting up, rehearsing, and production. Digital audio-visual processes include advanced lighting techniques, camera capture, media logging, editing and digital manipulation. In addition, students participate in the creation of projects for external and internal clients and may choose to take advantage of internship opportunities during the spring of their senior year. The internships occur at local businesses such as television stations, cable networks and photo studios. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

**PRINCIPLES OF MULTIMEDIA**
A1030/A1030SM Grade Level 10, 11, 12 1 Credit
Principles of Multimedia provides students an understanding of all aspects of the Arts, Media and Communication industry. Students will examine the opportunities and requirements of the major career pathways in this industry including: Communication and Broadcast Technologies, Multimedia Production, Graphic Design and Print Communication. Throughout the course, students will have opportunities for career awareness and exploration activities. All students will be required to produce artifacts for inclusion in a design portfolio, including an AMC Career Exploration Research Paper and a Media Product (concept, storyboard and product). Available at NHHS and SHHS.

**INTERACTIVE MULTIMEDIA PRODUCTION**
A1031/A1031SM Grade Level 10, 11, 12 1 Credit
Interactive Multimedia Production further develops student mastery of media design and the interactive media production process. Students will advance their knowledge and skills in media design and production through project planning and product development. Students will demonstrate the use of multiple tools and styles of expression in the production process. Emphasis will be placed on group project development and individual portfolio development. Students will update their IMP Portfolio with an Interactive Media Product Proposal, Specifications Document and Media Product. Available at NHHS and SHHS.

**ADVANCED INTERACTIVE MULTIMEDIA PRODUCTION**
A1032 Grade Level 11, 12 2 Credits
In Advanced Interactive Multimedia Production students will advance their knowledge and skills in multimedia design and production through project planning and product development. Students will demonstrate the use of multiple tools and styles of expression in the production process. Emphasis will be placed on group project development and development of a layered portfolio. Students will update their IMP Portfolio with Advanced Media Product(s), including web pages; application for college-level program; and adobe Creative Suite Certification(s) or Web Design Certification (WOW). Available at NHHS and SHHS. The first half of this course is the CTE Pathway Concentrator and the second half is CTE Pathway Completer.

**BUSINESS MANAGEMENT AND FINANCE**

**WORD PROCESSING I**
A761 Grade Level 9, 10, 11, 12 1 Credit
Word Processing I instruction centers on keying (the manipulative skills) and formatting (arranging, placing, and spacing of often-used documents). Language skills deserve and receive emphasis. This elective course is not a requirement in any CTE Completer course sequence.

**PRINCIPLES OF ACCOUNTING AND FINANCE**
A773 Grade Level 10, 11, 12 1 Credit
Principles of Accounting and Finance is one of two foundation courses required for all programs of study in the Business Management and Finance Career Cluster and is essential to all pathways. This course provides students with the knowledge necessary to manage and maintain a company’s financial resources in daily operating decisions. A mastery of fundamental accounting concepts, skills, and competencies is essential in making informed business decisions. Students will learn to apply generally accepted accounting principles to determine the value of assets, liabilities, and owner’s equity as they apply to various forms of manual and computerized accounting systems. Students will identify positions and career paths in the field of accounting and will examine the role of ethics and social responsibility in decision making.
MARKETING I  
A775 Grade Level 10, 11, 12  1 Credit
Marketing I introduces students to the processes and functions involved in transferring business products or services to a consumer. The study of marketing helps students gain a clearer picture of how key business functions are directly related to marketing activities. Classroom instruction is combined with the high school’s Future Business Leaders of America (FBLA) activities to enhance the student’s understanding of marketing and distribution. **CTE Pathway Concentrator Course.**

MARKETING II  
A776 Grade Level 10, 11, 12  1 Accelerated Credit
Marketing II gives students the opportunity to pursue in greater depth the development of marketing/management competencies necessary for full-time employment and job advancement in marketing and distribution businesses. Work-based learning is a strong component of this program and allows students to be involved in organized learning experiences in marketing, management, sales and merchandising. As with Marketing I, FBLA activities enhance the student’s understanding and application of marketing concepts. Students will take the Marketing CLEP exam. **CTE Pathway Completer Course.**

HONORS ACCOUNTING AND FINANCE II  
A781H Grade Level 10, 11, 12  1 Accelerated Credit
Accounting and Finance II is designed to be the second accounting course for students enrolled in the Financing and Accounting Program of Study. This course provides students with accounting knowledge that will prepare them for post-high school levels of education and entry-level positions in the work force. Focus will be on accounting procedures necessary to address long and short-term assets and investments, long and short-term liabilities, inventory management, payroll procedures, and accounting ratios used the decision-making process. A comprehensive study of the accounting procedures used in establishing corporations, declaring and paying dividends, the formation and dissolution of partnerships, and distribution of net income and owners’ equity statements is included in this course. Career pathways for accounting will be examined and the use of accounting knowledge in a variety of career clusters is also explored. Awareness of ethical issues and application of ethical decision-making models will be reinforced throughout the course. Students may earn college credit through an articulation agreement with Hagerstown Community College. **CTE Pathway Completer Course.**

Prerequisite: Principles of Accounting and Finance

ACCOUNTING AND FINANCE III - CAPSTONE  
A782H Grade Level 11, 12  1 Credit
Students will apply the knowledge and skills acquired in previous accounting and finance courses to settings through the Accounting and Finance Final Capstone Project. Students will participate in an end-of-course final project that will involve comprehensive problem-solving in accounting and finance. **CTE Pathway Completer Course.**

Prerequisite: Accounting and Fiance

OFFICE SYSTEMS- EXCEL  
A786 Grade Level 10, 11, 12  1 Accelerated Credit
Students will develop advanced skills using Microsoft’s leading business software and provided the opportunity to acquire the Microsoft Office Specialist (MOS) credential. Students will be expected to think analytically, manipulate information, and use the computer as a productivity tool through integrated application programs. Expertise in technology will contribute to students’ future career mobility, advancement potential, compensation and job satisfaction. **CTE Pathway Completer Course.**

OFFICE SYSTEMS - WORD  
A789 Grade Level 9, 10, 11, 12  1 Credit
Office Systems - Word provides the student with a study of basic business practices, information systems and computer applications. Students develop managerial and technical skills for business support operations through applied learning. Problem-solving skills development is incorporated throughout the course to meet the recommendations made through the Maryland Skills for Success. Competencies include: applying emerging technologies in order to complete appropriate office operations; desktop publishing and/or word processing software in order to create business documents and professional presentations. Industry standard office equipment and the most current Microsoft Office software available will be used in this course. **CTE Pathway Completer Course.**

DESKTOP PUBLISHING/WEB DESIGN  
A794 Grade Level 10, 11, 12  1 Credit
Desktop Publishing/Web Design teaches students to produce documents in a professional, effective manner. Students learn to communicate ideas to readers. These skills help students produce effective documents with any software program. Basic working knowledge of desktop publishing software is required. This course is not a requirement in any CTE Completer course sequence.
PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT  
A795 Grade Level 9, 10, 11, 12 1 Credit
This is one of two foundation courses required for all pathways in the Business Management and Finance career cluster and is essential to all pathways. This course provides a foundational understanding of the role of business by exploring fundamental business concepts and key terminology. Students will gain experience in oral and written communications as well as enhancing listening and questioning skills. Students will collaborate daily using teamwork for problem solving and developing decision-making skills. This course will give the student a solid understanding of business ownership, management concepts, and marketing.

PRINCIPLES AND APPLICATIONS OF FINANCE  
A828 Grade Level 9, 10, 11, 12 1 Credit
This is the foundation course for the Academy of Finance career pathway. Through this introduction to the financial world of business, students develop financial literacy as they learn about the function of finance in society. They will study income and wealth; examine financial institutions; study the risks and rewards of borrowing and investing; learn to identify the legal forms of business organization; learn how businesses raise capital; study key investment-related terms and concepts; develop an understanding of profit; and learn about various financial analysis strategies. Students also have the chance to explore, in depth, topics of high interest in the field of finance, research how innovations have changed the financial services field, and explore the types of careers that exist in finance today. This is a required course for the Academy of Finance at WHS.

PRINCIPLES OF ACCOUNTING AND FINANCIAL REPORTING  
A829 Grade Level 10, 11, 12 1 Credit
Principles of Accounting and Financial Reporting provides students with an understanding of the accounting process and how to facilitate decision making by providing data and information to internal and external stakeholders. Students learn that accounting is an integral part of all business activities. They learn how to apply technology to accounting by creating formulas and inputting data into spreadsheets. Students are also introduced to the fundamentals of management accounting, including manufacturing and cost accounting, budgeting, accounting for managerial decision-making, and financial statement analysis. Students learn how to use accounting information for internal decision-making and planning and control. Regardless of the career path they choose, this course gives students the financial acumen necessary to make informed personal and business decisions. Students also examine career opportunities and the professional certifications and designations earned by individuals in the accounting profession. This is a required course for the Academy of Finance at WHS.

FINANCIAL SERVICES  
A830 Grade Level 10, 11, 12 1 Credit
This course offers an overview of banks and other financial services companies. It introduces students to the origins of money and banking and examines the early history of banking in the United States. Students study the financial services industry and the types of companies it includes; learn about the services offered by such companies and analyze the ways these companies earn profits. Students will look closely at the job of a financial planner, learning to consider how all aspects of financial planning might affect a potential client, and learn about the importance of financial planning in helping people reach their life goals. This course includes lessons on saving, borrowing, credit, and all types of insurance, and covers various types of investments. Students also examine careers in financial services and planning. This is a required course for the Academy of Finance at WHS. CTE Pathway Concentrator Course.

ACADEMY OF FINANCE INTERNSHIP  
A850 Grade Level 12 1 Credit
Academy of Finance Internship is a program in which students use the skills and information learned in the classroom while performing a finance related job in a local business. Lasting 4-6 weeks (180 hours) students work in this paid internship in the summer between their junior and senior year or during either semester of their senior year. CTE Pathway Completer Course.

ADVANCED BUSINESS MANAGEMENT  
A897 1 Accelerate Credit
This course provides students with the knowledge that will prepare them for post-high school levels of education and entry-level positions in the work force. Focus will be on the role of business in society; the changing nature of contemporary business practices; major management concepts, theories, and theorists, the processes of management, business law and ethics, and business communications. Career pathways will be examined and the use of business management knowledge in a variety of career clusters is also explored. Students will understand the business world and be more prepared to meet their career goals and objectives. Upon completion, students will take the Principles of Management CLEP exam. Students will be able to earn college credit through articulation agreements with local colleges. CTE Pathway Concentrator Course.

BUSINESS MANAGEMENT CAPSTONE  
A898 1 Accelerated Credit
Students will apply the knowledge and skills acquired in the previous business management courses to settings through the business management capstone project that will involve intense problem-solving in business management. Students who have not yet passed the Business Management CLEP exam may use their capstone project to reinforce preparation for the CLEP exam. CTE Pathway Completer Course.
ADVANCED DESIGN AND 3-D MODELING
A936 1 Accelerated Credit
Students will work in teams to fully develop designs and a construction management plan for a pre-determined site. In this year-long project, students begin with the legal description and topography of the site and create a proposal for development. The construction design project must meet the client's needs, budget, and the site characteristics. Students will generate a series of plans to be included with the proposal for submission to an industry review panel for approval. Upon completion of the course, students will demonstrate advanced design/drafting skills and be prepared for the AutoCAD certification exam. CTE Pathway Concentrator Course.

ADVANCED CONSTRUCTION MANAGEMENT
A937 1 Accelerated Credit
This capstone course builds on an understanding of the construction design process to advanced knowledge and skill in construction management. In this course, students will be required to work in teams to complete a project from existing plans. The year-long project will focus on building codes and standards, coordination of the construction process, estimating, planning and scheduling; and site management. Students will complete a portfolio of their design and construction management projects for review by an industry panel. Students are prepared to take exams for AutoCAD credentialing. CTE Pathway Completer Course.

FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY (CORE)
A908 Grade Level 10 1 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 basis for all construction skills. NCCER strongly recommends that 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 “hand-on” applications/work-based learning opportunities to reinforce and extend the learning.

CARPENTRY I
A910 Grade Level 11 1 Credit
The course of study for Carpentry I (Level I) includes demonstration of student mastery of the following topics: wood building materials; fasteners and adhesives; hand and power Tools; floor systems; wall and ceiling framing; roof framing; windows and exterior doors. This program is available at BHS, HHS, SHHS, and SHS.

CARPENTRY II
A911 Grade Level 12 2 Credits
The course of study for Carpentry II includes demonstration of student mastery of the following topics: reading plans and elevations; site layout one—distance measurement and leveling; introduction to concrete and reinforcing materials; foundations and flatwork; concrete forms; reinforcing concrete; handling and placing concrete; manufactured forms. This program is available at BHS, HHS, and SHHS. To be a completer in this NCCER pathway students must take and pass the Core Battery exams and take all of the Level I exams. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.
Prerequisite: Carpentry I

INTRODUCTION TO CONSTRUCTION AND DESIGN
A934 1 Credit
This course provides an overview of the design and construction process as well as an introduction to the many career options within the field of construction. Students will be introduced to core concepts in design and construction including: construction methods and materials; fundamental elements of design; and innovative technologies including Green Construction and Design. Students will be introduced to design software as they complete basic design projects, such as floor plans. In addition, students will begin to develop a better understanding of the fields’ interrelationships.

PRINCIPLES OF CONSTRUCTION DESIGN
A935 1 Credit
This course provides students with an in-depth understanding of the construction design process. Students will complete a series of increasingly complex construction design projects in which they incorporate all aspects of the construction process, including zoning and regulation requirements; surveying; and project planning. Students will use design software to generate site plans (topography) as well as detailed building plans. The use of portfolios is introduced as a means of showing the developmental stages of a design project. Students will use 3D computer software to complete projects. Students will prepare and test for AutoCAD Certification.
The WCTHS Carpentry Program prepares students to be multi-skilled carpenters ready to enter the continually evolving world of construction. Today’s carpenters do more than just new construction and traditional carpentry tasks of the past. Today’s journeyman carpenters work with remodeling projects, maintenance departments and in factories that produce prefabricated buildings. Instructional topics include the development of carpentry and related construction skills, material selection, computer-related skills in construction planning, material take-off and estimating, and blueprint reading. Students participate in a school-based business “house project” where they experience building a complete house from start to finish. The Associated Builders and Contractors (ABC) apprenticeship sequence is also available to qualifying students. This completer program is articulated with Hagerstown Community College and Montgomery Community College.

The Electrical Construction Program prepares students with the current industry required electrical skills to work as an apprentice in residential, commercial and industrial work environments. Highly skilled electricians are employable. Since Edison invented the light bulb in 1879, electrical technology has increased the demand for electricians. This demand has caused working conditions to improve and salaries to greatly increase. Whether students are interested in residential, commercial or industrial electrical work, jobs are available to all graduates before and after graduation. Students have the opportunity to earn the first year of a four-year apprenticeship with the Associated Builders and Contractors Apprenticeship Program. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

NCCER Plumbing Level I

A960  Grade Level 11   4 Accelerated Credits

The NCCER Plumbing Level I course consists of a combination of internet-based on-line training, textbook, and hands-on, practical lab exercises that expands on the content from the NCCER Plumbing Level I program, introducing the student to the next level of plumbing applications and practices. Topics covered include plumbing math two; reading commercial drawings; hangers, supports, structural penetrations, and fire stopping; installing and testing DWV piping; installing roof, floor, and area drains; types of valves; installing and testing water supply piping; installing fixtures, valves, and faucets; introduction to electricity; installing water heaters; fuel gas systems; and servicing of fixtures, valves, and faucets. The passing of the required end of course testing is required for continuance in an Apprenticeship Program at the Barr Construction Institute. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

NCCER Plumbing Level II

A963  Grade Level 12   4 Credits

Students must travel to the Barr Construction Institute for the Plumbing classes. NCCER Plumbing Level II is a course designed to teach students the principals and identification of plumbing and the various techniques of operations. Students will gain extensive training, apply daily operations and hands-on experience focusing on emphasis on the following topics: Introduction to the Plumbing Profession, Math, Drawings, Drain, Waste, and Vent (DWV) Systems, and to Water Distribution Systems; Plumbing Safety, Tools; Plastic, Cooper, Cast-Iron and Carbon Steel Pipe and Fittings; Corrugated Stainless Steel Tubing and Fixtures. Students must travel to the Barr Construction Institute for the Plumbing classes. The introductory course for Heating, Ventilation, and Air Conditioning (HVAC) will introduce the students to basic HVAC principles; allow them to practice the mathematics required to calculate controls for HVAC equipment; develop skills in installing and maintaining plastic, copper, and ferrous metal piping systems; learn and practice basic soldering and brazing techniques; learn introductory electrical control operation; and review basic principles of air distribution, cooling, and heating systems operation. The passing of the required end of Level I course testing is required for continuance in the program at the Barr Construction Institute.

Prerequisite: Introductory Craft Skills (NCCER Basic Core)

Level II of the HVAC curriculum continues student development in the skills students learn in the Level I program. Students will apply principles of air distribution systems; learn how to select and install vents, chimneys and flues for fossil-fuel burning heating systems; practice the basic maintenance skills required to maintain HVAC equipment; apply the principles of basic electronics to heating controls, circuits, meters, compressors and heat pumps; and practice skills in leak detection, evacuation, recovery, and charging of refrigerants. The passing of the required end of course testing is required for continuance in an Apprenticeship Program at the Barr Construction Institute. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

NCCER Heating, Ventilation and Air Conditioning I (HVAC I)

A958  Grade Level 11   4 Credits

The passing of the required end of Level I course testing is required for continuance in the program at the Barr Construction Institute.

Prerequisite: Introductory Craft Skills (NCCER Basic Core)

NCCER Heating, Ventilation and Air Conditioning II (HVAC II)

A961  Grade Level 12   4 Accelerated Credits

The NCCER Heating, Ventilation and Air Conditioning II (HVAC II) course consists of a combination of internet-based on-line training, textbook, and hands-on, practical lab exercises that expands on the content from the NCCER Heating, Ventilation, and Air Conditioning I (HVAC I) program, allowing the student to properly identify and perform on a high level of plumbing applications and practices. Topics covered include plumbing math two; reading commercial drawings; hangers, supports, structural penetrations, and fire stopping; installing and testing DWV piping; installing roof, floor, and area drains; types of valves; installing and testing water supply piping; installing fixtures, valves, and faucets; introduction to electricity; installing water heaters; fuel gas systems; and servicing of fixtures, valves, and faucets. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.
BEATING A FOOD SERVICE PROFESSIONAL (LEVEL 1)
A819  Grade Level 10, 11  1 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 while learning to prepare a variety of foods. They develop a broad understanding of the variety of career options available in the food service and hospitality industry. Emphasis on management distinguishes this course from Culinary Arts I. Students can begin to accrue hours to meet the 400-hour work-based learning experience requirement. One hundred and fifty (150) of the 400 hours can be earned through unpaid clinical experience. The course begins to prepare students to take the National Restaurant Association Level I exam at the end of the course. Available at NHHS, SHHS.

BEATING A FOOD SERVICE PROFESSIONAL (LEVEL 2)
A820  Grade Level 10, 11  1 Accelerated Credit

Students enrolled in this course continue to prepare a variety of foods. They create menus and demonstrate various types of restaurant service. They apply purchasing techniques and demonstrate an understanding of inventory monitoring and control. Students have the opportunity for an authentic, mentored work-based learning experience. Emphasis on management distinguishes this course from Culinary Arts II. Students can continue to accrue hours to meet the 400-hour work-based learning experience requirement. Two hundred (200) of the 400 hours can be earned through unpaid clinical experience. All students enrolled in this course must take the National Restaurant Association end-of course exam. Students have the opportunity to earn the ServSafe Credential.

Prerequisite: Becoming a Food Service Professional (Level 1). Available at NHHS, SHHS. CTE Pathway Completer Course.

PRACTICAL EXPERIENCE AS A FOOD SERVICE PROFESSIONAL
A821  Grade Level 12  2 Credits

This course provides students the opportunity to refine further and apply skills that support all aspects of the hospitality industry. It assists in preparing students for employment and advancement in the field of hospitality and food and beverage management. Students complete 400 hours in an industry-mentored, work-based learning experience. Students may begin accumulating hours from the beginning of the Level 1 Food Service Professional class. Available at NHHS, SHHS. CTE Pathway Concentrator Course.

COSMETOLOGY LEVEL I
A940  Grade Level 11  4 Credits

COSMETOLOGY LEVEL II
A941  Grade Level 12  4 Accelerated Credits

The Cosmetology Program prepares students to enter the challenging and rewarding profession of cosmetology. The world of cosmetology offers students the opportunity for artistic expression as well as financial security. They participate in shadow and mentor programs with local businesses, giving them real world experience. Students are prepared to pass the Maryland State Board of Cosmetology Examination for the operator’s license. Successful graduates are people who like to be creative with hair designs, nail treatments, facials, and interact with people. Available at WCHS. CTE Pathway Concentrator Course.

COSMETOLOGY II PRACTICUM
A942  Grade Level 12  4 Credits

The Cosmetology Practicum provides students an opportunity to practice their Cosmetology Employment Skills in a Salon based laboratory. Students will, under the guidance and supervision of the instructor, provide the broad range of services to customers from within and outside the school. Students will practice all of the skills required for the certification test for a licensed Cosmetologist in the state of Maryland and will also practice all of the skills required to work in or manage a salon. Available at WCHS. CTE Pathway Completer Course.

CULINARY ARTS LEVEL I
A950  Grade Level 11  4 Credits

CULINARY ARTS LEVEL II
A951  Grade Level 12  4 Accelerated Credits

The Culinary Arts Program prepares students for success with the right ingredients to enter one of the fastest growing service industries. Students train in a modern, fully equipped commercial kitchen. Students are a part of an actual school-based restaurant and cafeteria business. In addition to mastering cooking, students learn baking and restaurant management. There is always a demand for professionals in the challenging career of culinary arts. This program launches students on a career pathway in the world of fine dining and hospitality. As one of only 32 schools in the nation that are certified by the American Culinary Federation, graduates have the opportunity to earn college credits at Johnson and Wales University, Pittsburgh Institute of Culinary Arts, and Yorktown Business and Culinary Institute. Available at WCHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.
PRINCIPLES OF HOSPITALITY AND TOURISM
A1040/A1040SM    Grade Level 10, 11, 12    1 Credit
The content of the introductory course of the Hospitality and Tourism Management completer will provide students with broad-based learning on the tasks, knowledge, and skills required by anyone wishing to build a career within the hospitality and tourism industry, including information that is required for operational level employee positions and responsibilities. Available at NHHS.

MARKETING
A775    Grade Level 10, 11, 12    1 Credit
Marketing I introduces students to the processes and functions involved in transferring business products or services to a consumer. The study of marketing helps students gain a clearer picture of how key business functions are directly related to marketing activities. When taught at NHHS, emphasis will be placed on the application of marketing to Hospitality and Tourism Management. Available at NHHS.

HOSPITALITY AND TOURISM MANAGEMENT
A1041/A1041SM    Grade Level 10, 11, 12    1 Credit
In this course of the Hospitality and Tourism Management completer students focus on the leadership and managerial knowledge, skills, and abilities required for advancement in a management track in the hospitality and tourism industry. Available at NHHS. CTE Pathway Concentrator Course.

HOSPITALITY AND TOURISM INTERNSHIP
A1042/A1042SM    Grade Level 11, 12    1 Credit
Students participating in an internship will be placed in a professional setting under the supervision of a Hospitality and Tourism Management Professional that allows students to apply the skills and knowledge acquired from their previous coursework while practicing leadership and managerial skills during the rotation among station within the professional facility. The internship includes a minimum of 100 hours, which may be paid or unpaid. Success will be documented by the use of a competencies checklist. Available at NHHS. CTE Pathway Completer Course.

ENVIRONMENTAL, AGRICULTURAL, AND NATURAL RESOURCES SYSTEMS

ADVANCED INDEPENDENT STUDY (Agriculture)
A040    Grade Level 12    1 Credit
Advanced Independent Study students are allowed to pursue an individualized course of study in agriculture or horticulture. Each student is assigned to an Agriculture Science teacher for one period and works with that teacher in meeting individual career preparatory goals and course objectives. Students must be a program completer prior to registering for this class. Available at BHS, CSHS, SHS.

COOPERATIVE AGRICULTURE WORK EXPERIENCE
A800    Grade Level 12    Up to 4 Credits
Cooperative Work Experience students may earn up to four credits for their work experience in an agriculturally related business. The work experience in a business setting is an extension of the classroom program and provides students with on the job experiences. The business must be pre-approved by the program coordinator. An agreement detailing the cooperative work experiences to be gained by students is agreed upon and signed by the employer, student, student's parents, and the program coordinator. Experiences gained in this course are valuable as the student transitions from school to the world of work. Cooperative Work Experience students must be in an agricultural program and in their senior year to be eligible for Cooperative Agriculture Work Experience. Available at BHS, SHS.

ENVIRONMENTAL RESOURCE MANAGEMENT
A852    Grade Level 9, 10, 11, 12    1 Credit
Environmental Resource Management is designed to introduce students to the diverse areas of environmental resources management, its principles, practices, and career opportunities. This course focuses on the policies and conservation management practices related to water, soil, air, forests, fish and wildlife, land use, and energy resources. The recreational uses of these resources is addressed. Available at BHS, SHS.

POWER MECHANICS I
A865    Grade Level 9, 10, 11, 12    1 Credit
Power Mechanics I is designed to familiarize students with the basic theory and specialized skills relative to mechanics in the diverse field of agriculture. Skills are developed in the areas of safety, material planning, tool identification and use, carpentry, electricity, painting, small gasoline engines, welding, and leadership. Available at BHS, CSHS, SHS.

POWER MECHANICS II
A866    Grade Level 10, 11, 12    1 Credit
Power Mechanics II is designed as an in-depth study of mechanics in agriculture. Students receive additional training in the areas studied in Power Mechanics I. Additional training is offered in tool fitting, metalworking and welding. Available at BHS, CSHS, SHS. Prerequisite: Power Mechanics I
BIOTECHNOLOGY
A868 Grade Level 11, 12 1 Credit
Biotechnology students study genetic engineering and how gene technology is transforming agriculture while making advances in medicine for humans, animals, and plants. Available at CSHS. This course is a prerequisite for the Environ/Ag Academy.
Prerequisite: Honors Biology

FISH/WILDLIFE
A909 Grade Level 10, 11, 12 1 Credit
Fish/Wildlife introduces students to wildlife in the Eastern United States. Students learn identification, habits, habitat requirements, and ecosystem/food chain interactions. Students study the physical characteristics of the oceans, estuaries, and freshwater systems. The history of wildlife management practices and policies and the benefits gained from wildlife are also covered. Fish/Wildlife places emphasis on managing wildlife populations, habitat evaluation, and outdoor safety. Public policies and government laws pertaining to wildlife management are also covered. Career opportunities in wildlife management are explored. Available at CSHS.
Prerequisite: Environmental Resource Management

FORESTRY/SOILS
A920 Grade Level 10, 11, 12 1 Credit
Forestry/Soils provides a broad, basic introduction to dendrology and silviculture from the earliest uses of forests to the latest methods in the field. Topics considered include: conservation, forest and wildlife management, energy and resources, tree harvesting, damage caused by fire, and control of weather, insects, animals, and diseases. Major emphasis is placed on tree identification, employment opportunities, forest products, wood characteristics, safety practices, and business methods relating to forestry. Students study the formation of soils, their capability classes, and series. Types of soil erosion and methods to control the erosion on agricultural and non-agricultural lands are also discussed. Career opportunities are explored. Available at BHS, CSHS, SHS.
Prerequisite: Environmental Resource Management

AGRICULTURE SCIENCE
A921 Grade Level 9, 10, 11, 12 1 Credit
Agriculture Science is designed to explore the basic theory and uses of biotechnology in modern agriculture sciences. Course content focuses on plant and animal improvement, disease and insect control, integrated pest management, aquaculture, aquaculture, genetic engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science. Available at BHS, CSHS.

HORTICULTURE SCIENCE
A922 Grade Level 9, 10, 11, 12 1 Credit
Horticulture Science students study how plants grow and are used in daily life. This course includes greenhouse management, plant propagation, plant nutrition, plant reproduction, vegetable and fruit gardening, care of houseplants, insects, and disease control. Horticulture Science also includes a unit on small gas engines. Available at BHS, CSHS.

NURSERY LANDSCAPE/TURF MANAGEMENT
A923 Grade Level 10, 11, 12 1 Credit
Nursery Landscape/Turf Management acquaints students with the three major branches of the landscape industry: design, installation, and management. In the turf grass component of the course, students study the installation and maintenance of turf grass and the use and service of equipment. Available at BHS. CTE Pathway Completer Course
Prerequisite: Horticulture Science

GREENHOUSE/FLORAL DESIGN
A924 Grade Level 10, 11, 12 1 Credit
Greenhouse/Floral Design is an in-depth study of the many aspects of the horticultural field. This course includes the proper use of scientific procedure and critical thinking skills. Greenhouse/Floral Design places emphasis on the areas of landscaping, turf and lawn management, design, and mechanics. Students are exposed to the areas of floral design, plant production and hydroponics. Career opportunities, pesticide use, and leadership skills are included. Available at BHS, CSHS, SHS. CTE Pathway Concentrator Course. Prerequisite: Horticulture Science

FOUNDATIONS OF ENVIRONMENTAL AGRICULTURAL SCIENCE
A1000 Grade Level 9 1 Credit
This course provides an overview of animal, plant, and environmental sciences to facilitate student choice of pathway for further study. The environmental science portion of the course introduces students to the diverse areas of environmental resources management: its principles, practices, and career opportunities. Focus is on the policies and conversation management practices related to water, soil, air, forests, fish and wildlife, land use, and energy resources as well as recreational uses of those resources. The basic theory and uses of biotechnology in modern agriculture sciences focuses on plant and animal improvement, disease and insect control, integrated pest management, aquaculture, genetic engineering, embryo transplants and other modern veterinary practices. Students learn greenhouse management, plant propagation, nutrition, and reproduction, vegetable and fruit gardening, care of houseplants, insects, and disease control by studying how plants grow and are used in daily life. This course is a yearlong (one semester) course. Available as an Academy course at CSHS.
GREENHOUSE
A1002  Grade Level 11, 12  1 Credit
In this course, students develop skills in the proper use of scientific procedures and critical thinking skills within the green industry. Emphasis is placed on the study of the types of plant growing structures, financing, location and sizing of greenhouse facilities, controlling the greenhouse environment and its effect on plant development. Growing medias, plant nutrition and watering, plant pest/pathology, plant propagation, and the growing and marketing of greenhouse crops are also addressed (plant pathway course). This is an Academy course at CSHS and WCTHS.
Prerequisite: Foundations of Environmental/Agricultural Science

TURF MANAGEMENT
A1003  Grade Level 11, 12  1 Credit
In this course students study the installation and management of turf grass and the use and service of equipment of green spaces. Topics include soils, grass species, fertilization, mowing and irrigation, weed, pest and disease controls. Upon completion of this course, students have the background to obtain certification for professional horticulturist and pesticide application certification in the state of Maryland. The course emphasizes golf course and sports turf management (plant pathway course). This is an Academy course at CSHS and WCTHS.
Prerequisite: Foundations of Environmental/Agricultural Science

PRODUCTION AND COMPANION ANIMALS
A1013  Grade Level 11, 12  1 Credit
This course is a general introduction to the industry associated with large production and small companion animals, its history, careers available, and the importance of safety and environment. Marketing and management of animal agriculture through selection, breeding, feeding and food safety, health, housing, and equipment are emphasized (animal pathway course). This is an Academy course at CSHS.
Prerequisite: Foundations of Environmental/Agricultural Science

VETERINARY TECHNOLOGY
A1007  Grade Level 11, 12  1 Credit
In this course, the areas of study include comparative anatomy and physiology of body systems, identification and prevention of disease, nutrition, clinical examination of animals, and basic principles of animal surgery. Students study advanced work in animal health and reproduction, as well as immunology, public health, and environmental controls (animal pathway course). This is an Academy course at CSHS. CTE Pathway Concentrator Course.
Prerequisite: Foundations of Environmental/Agricultural Science

VETERINARY INTERNSHIP
A1008  Grade Level 11, 12  1 Credit
The Academy Internship is a program in which students use the skills and knowledge learned in the classroom while performing an animal-related job or a research project in a local business or agency. Each student is assigned to an Agriculture Science teacher for one period and works with that teacher in meeting individual career preparatory goals. Student must be an academy completer in the animal pathway to qualify for this course (animal pathway course). This is an Academy course at CSHS. CTE Pathway Completer Course.
Prerequisite: Foundations of Environmental/Agricultural Science

AQUATICS AND WILDLIFE
A1014  Grade Level 11, 12  1 Credit
The Aquatics and Wildlife course introduces the student to wildlife, both aquatic and land-dwelling, in the eastern United States. Students learn identification, habits, habitat requirements, and ecosystem/food chain interactions in freshwater and marine ecosystems and wetlands. The course also covers the history of management practices and policies and the benefits gained from aquatics & wildlife as well as managing aquatic and wildlife populations, habitat evaluation, and outdoor safety. The course covers public policies and government laws pertaining to wildlife and aquatic management, aquaculture structure, and equipment. Students explore career opportunities in aquatic and wildlife management (Environmental-Natural Resources pathway course). This is an Academy course at CSHS.
Prerequisite: Foundations of Environmental/Agricultural Science

FORESTRY, SOILS AND THE ENVIRONMENT
A1015  Grade Level 11, 12  1 Credit
In this course, students learn the basics of soils as a complex system of organic and inorganic substances. Topics include the roles of biogeochemical cycles and microbial habitat. Students also study the formation of soil, their capability classes, and series. Students study types of soil erosion and methods to control the erosion on agricultural and non-agricultural lands. The study of forests provides a broad, basic introduction to dendrology (botanical study of trees) and silviculture (study of forests) from the earliest uses of forests to the latest methods in the field. Topics include conservation, forest and wildlife management, energy and resources, tree harvesting, damage caused by fire, and control of weather, insects, animals, and diseases. Major emphasis is placed on tree identification, employment opportunities, forest products, wood characteristics, safety practices, and business methods relating to forestry. Students explore career opportunities (Environmental-Natural Resources pathway course). This is an Academy course at CSHS.
Prerequisite: Foundations of Environmental/Agricultural Science
INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES
A1020 1 Credit
Students’ experiences in AFNR 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 a practical learning exercise. 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 connect their lessons and Supervised Agricultural Experience (SAE) and FFA. Available at HHS and SHS.

PRINCIPLES OF AGRICULTURAL SCIENCE - PLANT SCIENCE
A1021 1 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 investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. In addition, students will connect the Plant Science lessons and Supervised Agricultural Experience (SAE) and FFA. Available at SHS and HHS.

ANIMAL AND PLANT BIOTECHNOLOGY
A1022 1 Credit
The students study in biotechnology through biochemistry, safety and laboratory techniques, regulations, laws, and ethics, biotechnology research, DNA/gene transfer, emerging technology, microbial biotechnology, and transgenic material. The implications for agriculture will be learned through biofuels, embryo transfer, micropropagation, and biotechnology products and services. Students will also look to the future as they learn about careers and participate in Supervised Agricultural Experience programs (SAE). Available at SHS and HHS. CTE Pathway Concentrator Course.

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT
A1023 1 Accelerated Credit
The Agricultural Business, Research, and Development course will serve as the Curriculum in Agriculture Science Education (CASE™) capstone course. 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 Supervised Agricultural Experience (SAE) projects or other internship/ work-based learning opportunities. Available at SHS and HHS. CTE Pathway Completer Course.

HUMAN ECOLOGY AND ENVIRONMENTAL PROBLEM SOLVING
A1016 Grade Level 10, 11, 12 1 Credit
As the introductory course for the Environmental Studies completer, students will engage in interdisciplinary study of environmental problems and dilemmas related to population growth, energy usage, air, land and water pollution, commercial agriculture, and biodiversity loss in their communities, the state and the region. These problems and dilemmas will be used to explore topics such as biogeochemical cycles, hydrology, geology, ecology and climatology. They will explore environmental, agriculture and natural resources (EANR) related careers and investigate one or more these careers based on individual interests. The school offering this completer is to be determined.

NATURAL RESOURCE MANAGEMENT
A1017 Grade Level 10, 11, 12 1 Credit
This course is an extension of the skills and applications students developed in Human Ecology and Environmental Problem Solving. Students will explore existing and emerging principles of sustainable environmental management and strengthen understanding of local and regional regulation and policy-making as they relate these aspects to sustainability and protection of natural resources. Students will participate in field experiences to enhance learning. Students will learn relevant laboratory and field-based sampling techniques for evaluating ecological conditions and adaptive management principles for conservation.
ACADEMY OF HEALTH PROFESSIONS LEVEL I
A973  Grade Level 11  4 Credits
The Academy of Health Professions Level I is designed to provide students with an overview of the therapeutic, diagnostic, environmental, and informational systems in 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.

Level I students also study the structure and functions of the human body, including cellular biology and histology. Systematic study involves homeostatic mechanisms of the integumentary, skeletal, muscular, circulatory, nervous, and sensory systems. 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 chemistry or be concurrently enrolled in chemistry. Available at WCTHS.

ACADEMY OF HEALTH PROFESSIONS LEVEL II
A974  Grade Level 12  4 Accelerated Credits
Academy of Health Professions second year students are prepared for actual experience in the clinical setting with a focus on the specific knowledge, skills and abilities that relate to certified nursing assistant including Cardiopulmonary Resuscitation (CPR) and First Aid. Clinical internships will align with requirements set forth by the Maryland Board of Nursing. Students will take the written and practical Nursing Assistant Certification Exam at the completion of the course. Additional study toward the pharmacy technician certification will also be available. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

BIOMEDICAL SCIENCES LEVEL I
A975  Grade Level 11  4 Credits
Principles of Biomedical Science: This is the introductory course where students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

Human Body Systems: In this course students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

BIOMEDICAL SCIENCES LEVEL II
A976  Grade Level 12  4 Accelerated Credits
Washington County Technical High School only Medical Interventions course allows students to follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

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

Prerequisite: For Biomedical Sciences (PLTW) Level I: Successful completion of Biology, preferably Honors Biology, must be concurrently enrolled in college preparatory mathematics and science (Chemistry or Physics) classes. For Biomedical Sciences (PLTW) Level II: Successful completion of Biomedical Sciences (PLTW) Level I and concurrent enrollment or completion of college preparatory Chemistry, Physics and mathematics classes.
PARENTING AND FAMILY DYNAMICS
A834 Grade Level 9, 10, 11, 12 1 Credit
Parenting and Family Dynamics is a course in which students continue to study human behavior with the emphasis on the responsibilities and roles of parents in rearing children. Students study guidelines for selecting daycare and dealing with family crisis throughout the life cycle. Through their work with small children in a lab setting, students gain employability skills as well as life skills in designing a nursery school program. Students may earn 3 credits with Hagerstown Community College upon completion of “Child Development” and “Parenting and Family Dynamics.” A 90% course average and excellent recommendation from their classroom teacher is required to receive Hagerstown Community College credits. Available at CSHS, HHS, NHHS, SHHS, and WHS.

CHILD DEVELOPMENT
A836 Grade Level 9, 10, 11, 12 1 Credit
Child Development is a course that develops skills and knowledge necessary to understand the growth and development of the young child. The course begins with the study of self awareness, decision making, and human growth and development which develops into a practical study of understanding and caring for preschool aged children in a child care setting. This course is a prerequisite for Child Care Services and is required for a completer program in Child Care. Available at CSHS, HHS, NHHS, SHHS, and WHS.

CHILD CARE SERVICES
A840 Grade Level 12 1 Credit
Child Care Services is for seniors who are enrolled in a Child Care Completer Program. This course provides students with the skills and understanding of establishing a child care center. Child Care Services places emphasis on designing a learning center to accommodate the developmental needs of students in a child care facility. Students complete a portfolio, design learning activities, and are in charge of the instructional program under the direction of the teacher. Students may opt for an internship assignment with a teacher in the public school or child care center. Assignments are made by the child care teacher. Available at CSHS, HHS, NHHS, SHHS, and WHS. CTE Pathway Concentrator Course.

HUMAN GROWTH AND DEVELOPMENT THROUGH ADOLESCENCE
A841 Grade Level 10, 11 1 Credit
This course focuses on human development from birth through adolescence. 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 have opportunities for guided observation of children from birth through adolescence in a variety of settings to help students further understand theories of human development. Students begin to develop the components of a working portfolio to be assembled upon completion of the internship. This course is required for the Academy of Teaching Professions at NHHS and SHHS.

TEACHING AS A PROFESSION
A842 Grade Level 10, 11, 12 1 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 explore major approaches to human learning. Students 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 continue to develop the components of a working portfolio to be assembled upon completion of the internship. This course is required for the Academy of Teaching Professions at NHHS and SHHS.

FOUNDATIONS OF CURRICULUM AND INSTRUCTION
A843 Grade Level 11, 12 1 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 explore basic theories of motivation that increase learning. Students participate in guided observations and field experiences to critique classroom lessons in preparation for developing and implementing their own. Students continue to develop the components of a working portfolio to be assembled upon completion of the internship. This course is required for the Academy of Teaching Professions at NHHS and SHHS.

ACADEMY INTERNSHIP
A844 Grade Level 12 1 Credit
The internship is the culminating course of the Academy of Teaching Professions Program. Students have an opportunity to integrate content and pedagogical knowledge in an educational area of interest. They have an opportunity to extend and apply their knowledge about teaching in a classroom setting under the supervision of a mentor teacher. The students complete their working portfolio and present it for critique. This is an Academy course. CTE Pathway Concentrator Course.
Prerequisite: Foundations of Curriculum and Instruction
CHILD CARE INTERNSHIP
A845 Grade Level 12 1 Credit
Child Care Internship is the internship required for the Child Care Program Completer. Students are assigned to work with a Pre-K, a kindergarten, or elementary teacher and complete a daily journal. There is close supervision of the student by the course instructor and cooperating teacher. If this course is chosen as an Elective, it must be taken along with the Child Care Services course in order for the student to receive credit. Available at CSHS, HHS, NHHS, SHHS, and WHS. CTE Pathway Completer Course.
Prerequisite: Child Care Services

INTRODUCTION TO EDUCATION
A846 Grade Level 12 1 Accelerated Credit
Introduction to Education (the Academy capstone course) is styled for those interested in a career as a professional teacher or paraprofessional. Students explore the fundamentals of education which is a requisite for every professional teacher. These fundamental areas include the philosophical, historical, social, cultural, political, financial, and legal dimensions of the United States educational system. Students learn strategies for teaching reading, which are used in their internship. Students will sit for the ParaPro and Praxis I exams. This course is offered at NHHS and SHHS with dual credit earned at Hagerstown Community College. This course is required for the Academy of Teaching Professions at NHHS.

EARLY CHILDHOOD PROFESSIONS LEVEL I
A954 Grade Level 11 4 Credits
EARLY CHILDHOOD PROFESSIONS LEVEL II
A955 Grade Level 12 4 Accelerated Credits to Level II
The Early Childhood Professions Program prepares students to enter the challenging and rewarding career as an early childhood professional. Students who have an appreciation for children, a desire to touch the lives of others, and the willingness to test their aptitude for teaching, find the early childhood professions program rewarding. Many employment opportunities exist in the early childhood field. This program prepares students for an early childhood professional career as a child care or family child care provider in the human service field. Employment opportunities range from corporate offices to hospitals and private child care centers. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

HOMELAND SECURITY-LAW ENFORCEMENT LEVEL I
A980 Grade Level 11 4 Credits
HOMELAND SECURITY-LAW ENFORCEMENT LEVEL II
A981 Grade Level 12 4 Accelerated Credits
Homeland Security-Law Enforcement is a job cluster that prepares individuals to work in law enforcement agencies, investigative units, correctional institutions, or private protection-security agencies. Students completing this program may continue their education in a two or four year law enforcement related program. This program articulates with Hagerstown Community College for college credits. Students participate in an Explorers/Cadet program in conjunction with the Washington County Sheriff's Department. Senior students participate in internships with the Sheriff's department and the Washington County District Court. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

FOUNDATIONS OF HOMELAND SECURITY AND EMERGENCY PREPAREDNESS
A1024 1 Credit
This is one of two foundation courses required in all pathways of the Homeland Security and Emergency Preparedness career program. Emphasis will be placed on unique aspects of public safety and public health. The course will explore the various methodologies for intelligence gathering and dissemination and will introduce students to various local, state, and federal assets. Students will prepare an action plan that includes initial notification, emergency response (on and off scene), and recovery. This program is available at BHS and SHHS.

HOMELAND SECURITY I
A1025 1 Credit
This is one of two foundation courses required in all pathways the Homeland Security and Emergency Preparedness career program. Students will be introduced to threats to public safety and health, decontamination, protection, detection and identification, and planning concepts. Emphasis will be placed on the utilization of science to protect the public against chemical and biological threats. The course will explore the various methodologies and capabilities and limitations for individual and collective protection, handheld and fixed detection, and field sampling and laboratory identification. Students will prepare a chemical and biological incident response plan as an end of course assessment. This program is available at BHS and SHHS.

HOMELAND SECURITY II--RESEARCH METHODS AND APPLICATIONS
A1026 1 Credit
This course will focus on developing the student's scientific research, problem solving and writing skills. Emphasis will be placed on research and analysis, technical writing, team dynamics, and laboratory analysis and skills. The course will actively engage the student in market survey techniques, technical publication layout and design, team building skills and role play, and proper implementation of laboratory instrumentation and equipment. This program is available at BHS and SHHS. CTE Pathway Concentrator Course.
Prerequisite: Homeland Security I
INTERNSHIP/CAPSTONE EXPERIENCE
A1027  1 Credit
The Internship/Capstone Experience is the culminating course for all pathways in the Homeland Security and Emergency Preparedness Program. This course is designed to provide students with the opportunity to extend and apply their classroom learning in one of the career areas of Homeland Security Sciences. Students will have the option of completing an industry-mentored project, internship, or enrolling in a post-secondary course. They will play an integral part in determining which type of experience will be most beneficial and supportive of their individual goals. At the end of the course, students will compile a working portfolio which documents their academic and technical skill attainment and present it for critique. This program is available at BHS and SHHS. CTE Pathway Completer Course.
Prerequisite: Homeland Security II--Research Methods and Applications

HOMELAND SECURITY GLOBAL IMAGING AND COMMUNICATION TECHNOLOGY LEVEL I
A1028  Grade Level 11  4 Credits
ADD HOMELAND SECURITY GLOBAL IMAGING AND COMMUNICATION TECHNOLOGY LEVEL II
A1029  Grade Level 12  4 Accelerated Credits
Geographic Information Systems (GIS) are used in a variety of high-paying careers such as crime analysis, homeland security, and geospatial intelligence to help decision makers understand spatial patterns and the underlying information associated with their patterns. Students will be training on software widely used in the academic, federal, state and local governments as well as the private sector and be able to apply mapping technology in a wide variety of areas, such as urban planning, agriculture, public health, and emergency preparedness and response. These courses will prepare you for a career in one of the three fastest growing technology fields.

FIRE AND RESCUE ACADEMY
Maryland Fire and Rescue Institute of the University of Maryland Courses for the Fire and Rescue Academy

Fire and Rescue Academy is a 2-year program of the Maryland Fire Science Academy/University of Maryland. This program is sponsored by the Washington County Commissioners and the Washington County Fire and Rescue Association (WCVFRA) and administered by the Washington County Public Schools through the CTE office. Available at WCTHS.

High school juniors who are 16 years old before the start of school and a member of a local fire or rescue company or mutual aid company can enroll in the program for 2 years. Interested students need to apply with their school counseling department for enrollment at WCTHS.

The following course descriptions are from the University System of Maryland, College Park, Maryland.

FIRE AND RESCUE ACADEMY I
A943  Grade Level 11 and 12  4 Accelerated Credits (2016-2017)
FIRE AND RESCUE ACADEMY II
A944  Grade Level 11 and 12  4 Accelerated Credits (2017-2018)

FIRE YEAR MODULE (A943)
Hazardous Materials Operations (HMO)
HMO provides the student with the knowledge and skills to perform hazardous materials first response.

Firefighter I (FFI)
FFI provides students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a firefighting team.

Firefighter II (FFII)
Prerequisite: MFRI Firefighter I, or MFSPQB, NPQS, or International Fire Service Accreditation Congress (IFSAC) Firefighter I certification.

FFII provides the knowledge and skills needed to become a journeyman firefighter.

Engine Company Fireground Operations (ECFO)
Prerequisite: Basic Fire, Essentials IV, MFRI Firefighter I or equivalent.

ECFO provides the student with the fundamental principles of engine company operations and how they can be integrated during fireground operations.

Truck Company Fireground Operations (TCFO)
Prerequisite: Basic Fire, Essentials IV, MFRI Firefighter I or equivalent.

TCFO provides the student with the fundamental principles of truck company operations and how they are integrated during fireground operations.
Incident Management System (IMS)
IMS enables the student to identify and demonstrate the need for an organized approach to manage emergency incidents, to identify the elements of an emergency response system, and to assess department capabilities for implementing such a system.

Firefighter Survival and Rescue (FFSR)
FFSR reduces firefighter death and injury by addressing concerns when operating on structural fires.

Emergency Response to Terrorism: Basic Concepts (NERTBC)
NERTBC provides training for first responders responding to acts of terrorism. This is an introductory course providing awareness of the growing problem and safety considerations for first responders at terrorism responses.

RESCUE/EMS YEAR MODULE (A944)

Hazardous Materials Operations
HMO provides the student with the knowledge and skills to perform hazardous materials first response. Instruction occurs each year to certify or recertify students.

Emergency Medical Technician-Basic (EMTB)
EMTB provides students with the necessary knowledge and skills to perform emergency medical care in a pre hospital environment at the basic life support level.

Protective Envelope and Foam (PEAF)
PEAF provides the student with the training necessary for rescue and emergency care providers to achieve the level of skills necessary to mitigate a hazardous materials incident.

Rescue Technician Site Operations and Vehicle and Machinery Rescue (RTVMR)
RTVMR prepares 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 when needed; and properly package and transport a victim from a vehicular or machinery rescue.

Emergency Response to Terrorism: Tactical Considerations-Emergency Medical Services (NERTTCEMS)
NERTTCEMS provides first on-the-scene emergency medical services personnel with the necessary knowledge and skills for response to terrorist incidents.

Basic Life Support: Hazardous Materials (BLSHMNFA)
Basic Life Support provides an overview of critical concerns for emergency medical responders at hazardous materials incidents, including toxicological aspects associated with hazardous material incident response.

Basic Trauma Life Support (BTLS)
BTLS provides the student with the fundamental knowledge and experience necessary to get the trauma patient to the emergency department for continuum of care.

Responder Safety
Responder Safety provides the student with the knowledge and skills to operate safely at emergency scenes.

CISCO IT ACADEMY

IT ESSENTIALS
A1060 Grade Level 11 or 12 2 Credits
Imagine building a computer then connecting it securely to a network. This exciting first step could lead to a rewarding IT career. Because a sure way to excel—no matter which area of IT you choose—is to learn the right computer fundamentals. IT Essentials covers this as well as shares the career skills needed for entry-level IT jobs. Plus, you’ll enjoy working with Cisco’s Networking Academy’s advanced simulation tools and having multiple hands-on labs to really hone your troubleshooting skills and immediately practice what you learn! Also prepare for the CompTIA A+ Certification. No prerequisites or computer knowledge required.

CYBERSECURITY ESSENTIALS
A1061 Grade Level 11 or 12 1 Credit
A single breach can have huge consequences for a company’s ability to function, hurting the bottom line and causing disruption in the daily lives of millions of people. This is why the demand for security professionals continues to grow. Get onboard—and develop an understanding of cybercrime, security principles, technologies, and procedures used to defend networks. Then decide whether you want to pursue an entry-level networking or security role professionally. Recommended for students planning to study for the Cisco CCNA R&S, CCNA Cyber Ops or Cisco CCNA Security Certifications. Prerequisite Introduction to Cybersecurity or equivalent knowledge recommended.
NDG LINUX ESSENTIALS
A1062 Grade Level 11 or 12 1 Credit
As one of the most successful open source collaborations, Linux has evolved into the most reliable operating system on the planet. It's used for embedded systems to virtually all supercomputers for a good reason. Nearly every IT job requires some Linux knowledge. NDG Linux Essentials quickly builds your Linux knowledge and prepares you for the LPI Linux Essentials Professional Development Certificate (PDC), your proof to employers that you know Linux! Many concepts in this course are covered at a more demanding pace in NDG Linux I. No prerequisites required for this course.

CCNA R&S: INTRODUCTION TO NETWORKS
A1063 Grade Level 11 or 12 2 Credits
Begin preparing for a networking career with this introduction to how networks operate. This includes learning the architecture, structure, and functions needed to support the operations and priorities of Fortune 500 companies to small innovative retailers. You will even get the chance to configure a network yourself, such as a simple LAN (Local Area Network). After completing this course, you will have a working knowledge of routing, switching, network applications and protocols. This is the first course in a 4-course series designed to prepare you for entry-level networking jobs. No prerequisites required.

CCNA R&S: ROUTING AND SWITCHING ESSENTIALS
A1064 Grade Level 11 or 12 2 Credits
It's time to delve further into the world of networking. Be fascinated with the sheer magnitude and interconnectedness of networks all around you. Become a pro at configuring a router and a switch to enable the functionality of a network. Gain more knowledge on what it takes to work with LANs, WANs and other network designs. This is the second course in a 4-course series designed to prepare you for networking technician jobs, plus prepare you for the Cisco CCENT Certification or to continue on your path toward the Cisco CCNA R&S Certification. Course CCNA R&S: Introduction to Networks or equivalent knowledge is recommended.

INFORMATION TECHNOLOGY

DATABASE DESIGN
A900 Grade Level 10, 11 1 Credit
The Database Design course prepares students for database programming by challenging them to analyze complex business cases, to identify patterns to make connections between disparate data, and create a model for how a business should manage its information. This model becomes the blueprint for building the database. Students will develop professional skills, including teamwork, presentation skills, project management, and reflective thinking. This course is required for the ORACLE Academy at South Hagerstown High School.

Recommended Prerequisite: Algebra I and Geometry, recommended concurrent with Algebra II or higher mathematics.

DATABASE PROGRAMMING I
A901 Grade Level 10, 11 1 Credit
The Database Programming I course continues the work begun in “Database Design" by helping the student translate the theoretical aspects of database design into the real world applications of databases. Students learn Structure Query Language (SQL), pronounced “sequel,” an industry-standard language used by companies worldwide to build databases. This includes both relational and object-relational database concepts. Building on the professional skills in “Database Programming With PL/SQL,” they learn interviewing skills and tactical project management. This course is required for the ORACLE Academy completer pathway at South Hagerstown High School.

DATABASE PROGRAMMING II AND III
A902 Grade Level 11, 12 2 Accelerated Credits
The Database Programming with PL/SQL course introduces students to the PL/SQL programming language. In this course, students learn how to write PL/SQL code. Students learn to develop stored procedures, functions and packages, and they extend their knowledge of PL/SQL by learning more advanced topics such as creating database triggers, manipulating large objects, and managing dependencies. This course sequence can serve as preparation for the "Oracle Certified Associate (OCA): Introduction to Oracle9i: SQL" exam. This course is required for the ORACLE Academy completer pathway at South Hagerstown High School. Students are required to sit for the OCA exam in order to complete certification requirements as a completer. The first half of the Level II and III course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

COMPUTER REPAIR AND NETWORKING LEVEL I
A992 Grade Level 11 4 Credits
COMPUTER REPAIR AND NETWORKING LEVEL II
A993 Grade Level 12 4 Accelerated Credits
Computer Repair and Networking (CRaN)
This multifaceted program teaches computer technology skills including Cisco networking, IT Essentials (PC Repair), and Cyber Security as well as written and verbal communication skills. The program is certified as a Cisco Certified Networking Academy through Cisco Systems, one of the leading manufacturers of network equipment in the world. Students who successfully complete the program may be eligible to earn CompTIA A+ essentials certification, ICND1 (Interconnecting Cisco Networking Devices 1) certification, and Security + certification as well as earn college credits which may be obtained through an articulation agreement with Hagerstown Community College. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.
The following courses may be used to help students fulfill some of the requirements for the STEM Academy at WHS.

**MANUFACTURING INTERNSHIP**
A851 Grade Level 12 1 Credit
The Academy of Manufacturing/Engineering Technology Student Internship/Mentorship Program is a direct product of the Maryland Career Connections Initiative and strives to link related manufacturing/engineering workplace skills to classroom knowledge. Internships with one of our manufacturing/engineering business partners provide first hand experiences that enable students to clarify if a career in a manufacturing/engineering related field is compatible with their personal interests, skills/aptitudes and life goals. Students observe and participate in real-world work activities, apply classroom knowledge to real-world problems and apply the internship experience to classroom endeavors. Students develop and network of business community contacts and experience “All Aspects of Industry”. Students may be paid by the manufacturing/engineering business partners to participate in the internship experience.

**PRINCIPLES OF ENGINEERING**
A854 Grade Level 9, 10 1 Credit
Principles of Engineering is a broad-based survey course to help students understand engineering and engineering technology and identify career possibilities. Theoretical and hands-on problem-solving activities are emphasized.

**INTRODUCTION TO ENGINEERING DESIGN**
A855 Grade Level 10, 11, 12 1 Credit
Introduction to Engineering Design is an introductory course that develops students’ problem-solving skills, with emphasis on visualization and communication skills using a computer and a 3-D solid modeling software. This class fulfills the graduation requirement for Technology Literacy. However, if used to fulfill this requirement, it may not be applied as a course for the Academy of Manufacturing and Engineering Technology (PLTW) completer.

**DIGITAL ELECTRONICS**
A856 Grade Level 11, 12 1 Accelerated Credit
Digital Electronics is a course of study in applied digital logic, using electronic logic circuits that first are designed and then tested using the latest computer digital-logic modeling technology.

**COMPUTER INTEGRATED MANUFACTURING**
A857 Grade Level 11, 12 1 Accelerated Credit
Computer Integrated Manufacturing builds on skills in computer modeling design and exposes students to fundamentals of computerized manufacturing technology. The course covers prototyping, CNC equipment, CAM software, robotics, and flexible manufacturing systems. **CTE Pathway Concentrator Course.**

**ENGINEERING DESIGN AND DEVELOPMENT**
A858 Grade Level 12 1 Accelerated Credit
Engineering Design and Development involves two-to-four-person teams that research an open-ended problem and then design and construct a solution to it. Each team must submit progress reports and a final research paper. The team members then defend the solution with an oral presentation before an outside review panel. **CTE Pathway Completer Course.**

**MACHINE AND METAL PROCESSING I**
A859 Grade Level 11, 12 1 Credit
Machine and Metal Processing is designed as an introduction to engineering materials used in industrial applications and to acquaint students with the basic metallurgical and manufacturing principles of these materials. This course emphasizes chemical, physical, and mechanical properties while developing skills in welding, machining, cutting and forming materials commonly used in manufacturing today. Students will complete the NCCER Core instruction battery. **CTE Pathway Concentrator Course.**

**MACHINE AND METAL PROCESSING II**
A864 1 Credit
Machine and Metal Processing I extends the student’s knowledge of engineering materials used in industrial applications and to acquaint students with the basic metallurgical and manufacturing principles of materials. Students will complete the NCCER welding modules to earn industry certification. **CTE Pathway Completer Course.**

**AEROSPACE ENGINEERING**
A863 Grade Level 11, 12 1 Accelerated Credit
The major focus of this course is to expose students to the world of aeronautics, flight, and engineering through the fields of aeronautics, aerospace engineering, and related areas of study. Lessons engage students in engineering design problems related to aerospace information systems, astronautics, rocketry, propulsion, the physics of space science, space life sciences, the biology of space science, principles of aeronautics, structures and materials, and systems engineering. Students work in teams utilizing hands-on activities, projects, and problems and are exposed to various situations faced by aerospace engineers. In addition, students use 3D design software to help design solutions to proposed problems. Students design intelligent vehicles to learn about documenting their project, solving problems, and communicating their solutions to their peers and members of the professional community. **CTE Pathway Concentrator Course.**
ENGINEERING ACADEMY (PLTW) LEVEL I
A984  Grade Level 11  4 Credits
Introduction to Engineering Design: Students begin with the Project Lead the Way Engineering program, a nationally recognized program designed to introduce students to careers in engineering and design. Each PLTW Engineering course engages students in computational thinking where students will design and model solutions. Classes include Introduction to Engineering, Principles of Engineering, Digital Electronics, and Engineering Development and Design. Students will also learn advanced manufacturing skills through mechatronics, robotics, and automated control using programmable logic and coding in the national MSSC Certified Production Technician Program and may earn college credit. Engineering Academy is for students interested in pursuing college degrees in engineering fields. Internships are available during the senior year.

Through both individual and collaborative team activities, projects, and problems, students will problem solve as they practice common engineering design and development protocols such as project management and peer review. Students will develop skill in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. In addition the development of computational methods that are commonly used in engineering problem solving, including statistical analysis and mathematical modeling, are emphasized. Ethical issues related to professional practice and product development are also presented.

Principles of Engineering: Students explore a broad range of engineering topics including mechanisms, strength of structure and materials, and automation, and then they apply what they know to take on challenges like designing a self-powered car. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

ENGINEERING ACADEMY (PLTW) LEVEL II
A985  Grade Level 12  4 Accelerated Credits
Civil Engineering and Architecture: Students will develop skills in engineering calculations, technical representation, documentation of design solutions according to accepted technical standards, and use of current 3D architectural design and modeling software to represent and communicate solutions. During this course, students will investigate the roles of different jobs in the fields of civil engineering and architecture. They will design different types of houses, roofs, and structures. They will also use Revit to apply their knowledge and skills to design a residential house during their Affordable Home Project. During their capstone project they will design a commercial building modeled from a location around the county in their Commercial Building Design Project.

Engineering Design and Development: The final course of the PLTW Engineering sequence. The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing Engineering Design and Development ready to take on any post-secondary program or career.

Students apply knowledge from all academic areas to design, model, build, test and analyze: houses, commercial products, machines, robotics, material handling systems, control systems, and electronic devices. Students make extensive use of computers as a design and modeling tool. Students have the opportunity to complete an internship during their senior year to give them practical experience. Students have the opportunity to earn more than 15 articulated hours of college credit at Hagerstown Community College or any other PLTW affiliate university. Available at WCTHS. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

INTRODUCTION TO AUTOMATED MANUFACTURING SYSTEMS
A987  2 Credits
Introduction to Automated Manufacturing Systems is an introductory course for the Automated Industrial Design and Operations pathway. This course is a prerequisite for all of the other courses in this pathway sequence. In this course students will learn the history of Automated Manufacturing Systems (AMS) and the basic components and organization patterns of all AMS. They will study the multiple kinds of AMS subsystems and how they are integrated to for a production line. In addition, students will practice designing and building various components of an AMS using simulators and computer controls. Available at WCTHS

COMPUTER ASSISTED DESIGN
A988  2 Accelerated Credits
Knowledge of the principles of Computer Assisted Design is integral to students designing, building, and troubleshooting Automated Manufacturing Systems. Students will learn the basic and advanced principles and operations of the AutoCAD computer drafting program. They will design industry equipment and be able to interpret industry design drawings to plan the construction and placement of the equipment in a virtual industry production system. The understanding and application of processes and equipment for manufacturing careers will be stressed. Students will take the AutoCAD Industry Certification test. Available at WCTHS
Prerequisite: Introduction to Automated Manufacturing Systems.
TRANSPORTATION TECHNOLOGIES

The following programs are available at WCTHS.

**COLLISION REPAIR LEVEL I**
A930 Grade Level 11 4 Credits

**COLLISION REPAIR LEVEL II**
A931 Grade Level 12 4 Accelerated Credits

The Collision Repair Program prepares students to repair late-model wrecked automobiles, using the most up-to-date equipment and latest technology. Students train to use a uni-body frame machine, remove dents, and repair all other collision related damage. Students learn computerized estimating techniques and processes such as base-coat-clear-coat finishes. Successful completion of this National Institute for Automotive Service Excellence Master Certified program prepares students to be an ASE certified Collision Repair Technician. Students will have the opportunity to sit for one or more of the national automotive technicians education foundation (NATEF) program exams. This program articulates for college credit with Lincoln Technical Institute, Nashville Auto Diesel, and Pennsylvania College of Technology. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

**AUTOMOTIVE TECHNOLOGY LEVEL I**
A932 Grade Level 11 4 Credits

**AUTOMOTIVE TECHNOLOGY LEVEL II**
A933 Grade Level 12 4 Accelerated Credits

The Automotive Technology Program prepares students for the high tech age of automotive technology and repair. Students gain a solid knowledge of automotive technology that prepare them to service tomorrow’s cars. Students train on computerized diagnostic equipment in our National Institute of Automotive Service Excellence certified program. These certifications guarantee the curriculum prepares students to pass the industry certification exams to be an ASE Certified Technician. A school-based used vehicle dealership, “Mini Dealership”, is an integral part of instruction. Students will have the opportunity to sit for one or more of the national automotive technicians education foundation (NATEF) program exams. This program articulates for college credit with Universal Technical Institute, Community College of Baltimore Cantonsville, Penn College of Technology and Montgomery College. The first half of the Level II course is the CTE Pathway Concentrator and the second half is the CTE Pathway Completer.

**TECHNOLOGY LITERACY GRADUATION REQUIREMENT**

One credit in Technology Literacy is required to earn a high school diploma. Technology literacy is important to all students in order for them to understand why technology and its use is such an important force in our economy. All people will be able to perform their jobs better if they are technologically literate. Technology literacy benefits students who will choose technological careers - future engineers, aspiring architects, and students from any other fields. Students have a head start on their future with an education in technology.

**INTRODUCTION TO ENGINEERING DESIGN (PROJECT LEAD THE WAY)**
A855 1 Credit

If Introduction to Engineering Design is used to meet the graduation requirement, it may not be counted as a course in the 4 credits of the Academy of Manufacturing and Engineering Technology. This course is offered for the Technology Literacy credit only at Williamsport High School.

**FOUNDATIONS OF TECHNOLOGY**
A870 Grade Level 9, 10, 11, 12 1 Credit

Foundations of Technology will focus on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities with the goal of students developing the characteristics of a technologically literate citizen. The course is designed to engage students in exploring and deepening their understanding of "big ideas" regarding technology and makes use of a variety of assessment instruments to reveal the extent of understanding.

Students will develop and understanding of the influence of technology on history by learning how people have increased their capability by using their skills to innovate, improvise and invent. They will gain an understanding of how technology innovation results when ideas, knowledge, or skills are shared within a technology, among technologies or across other fields of study. Students will develop an understanding of engineering design, the formal process that transforms ideas into products or systems of the designed world. They will select and use manufacturing technologies and understand that modern manufacturing technologies influence a peoples' quality of life. Students will select and use construction technologies impact the design of structures. Students will select and use energy and power technologies and to explore the processing and controlling of energy resources. They will become familiar with information and communications technologies and their role in maintaining competitive economic growth. The course will conclude with the synthesizing of major ideas through an understanding of the core concepts of technology with an emphasis on systems-thinking and related principles. This course fulfills the graduation requirement for Technology Literacy.
CAREER RESEARCH AND DEVELOPMENT PATHWAY

WORK PREPARATION I
A778      Grade Level 11, 12  Up to 3 Credits
Work Preparation I offers 11th and 12th grade students with special needs the opportunity to gain work experience in a wide variety of areas. Students are urged to develop a positive attitude toward employment and to prepare themselves with desirable work habits before leaving the educational environment. Selected students may participate in the work experience component in the 11th grade, but all students are eligible to work in the 12th grade. Course content includes researching various careers and the study of job improving skills in English, math, money management, and successful job attitudes. Students with disabilities follow the guidelines of the IEP process. All students are governed by the regulations and training plans of the Special Education Program in Washington County.

WORK PREPARATION II
A779       Grade Level 11, 12     Up to 3 Credits
Work Preparation II is designed to prepare special needs students for the world of work through work experience.
Prerequisite: Work Preparation I

CAREER RESEARCH AND DEVELOPMENT
A802 Grade 11 or 12 1 Credit
The overall goals in this first in-school course are to teach students the process of self-awareness, career exploration, and setting academic and career-related goals

Students will demonstrate an understanding of how accurate, current and unbiased career information is necessary for successful career planning and management using Maryland's career clusters and pathways. In addition, students will be introduced to basic concepts of financial literacy to help them manage their personal finances. Course content will integrate the development of student’s competency in business writing, as well as, the Skills for Success (communication, learning, interpersonal, technology, and critical thinking). Students will also be required to prepare for and participate in the interview process.

Students will begin to develop a portfolio and will contribute to it throughout the program. Teachers will continuously review and assist in the development of the portfolio as part of individual course and end of program assessments. Toward the end of this course, students will review their high school plan as part of the career development process to make appropriate adjustments. Continuous communication among the students, employers and the Work Based Learning coordinators will provide students with feedback and evaluation results from their placements.

CAREER DEVELOPMENT SEMINAR
A803 Grade 11, 12 1 Credit
In this course, students will either be (a) juniors enrolled in an in-school course or (b) seniors enrolled in an in-school seminar concurrently with their WBL experience. The Career Development Seminar will prepare students to:

- research career options
- increase workplace readiness skills proficiency
- demonstrate proficiency in use of a decision-making model
- describe the impact of their cultural beliefs and attitudes on their career decisions
- recognize that personal growth and change are integral parts of career development
- analyze authentic workplace issues
- develop problem-solving strategies
- apply financial literacy skills to life management
- assess personal and professional goals
- learn how to meet employer’s expectations
- use interpersonal skills on the job
- communicate effectively in the workplace
- demonstrate proficiency in job-seeking, finding and keeping skills such as completing a job search, writing a resume, obtaining references, practicing interview skills and follow-up techniques CTE Pathway Completer Course.

WORK-BASED LEARNING EXPERIENCE
A804 Grade 12 2 Credits
The work-based learning experience takes place at the work-site and must include a minimum of 270 hours. It may be a paid or unpaid experience. The experience must be directed by the Work Based Learning agreement and a plan must be developed by the student, WBL Coordinator, and the employer. The WBL plan must identify the appropriate competencies, duties, and tasks in academic, technical and work readiness areas that apply directly to the student’s goals for a specific work-site placement.

The WBL coordinator is responsible for monitoring student placements, documenting student progress and accounting for student completion of their plan and portfolio. The student’s portfolio will document proficiency in 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 will be included in the grading of the student. All aspects of the plan must be successfully completed in order for students to receive credit for this career pathway completer program. CTE Pathway Completer Course.
Prerequisite or concurrent enrollment in: Career Research and Development, Career Development Seminar
APPRENTICESHIP MARYLAND PROGRAM
A1045 Grade Level 11, 12 Up to 4 Credits
The work-based learning apprenticeship experience takes place at the work-site and must be a paid experience (at least minimum wage) with a minimum of 450 hours. This experience is guided by a formal agreement provided by the school system and a student work. 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 Apprenticeship experience focuses on the student’s interests in manufacturing and STEM-related pathways documented through various types of career-related assessments and also based on Maryland’s career clusters/pathways and employer demand. Students are required to have CTE Concentrator completion or one year work related instruction, evaluated as needed by CTE office, prior to graduation.

INTERNATIONAL BACCALAUREATE CAREER-RELATED PROGRAM (IBCP)
(Offered to North Hagerstown High School Juniors, only, during 2017-2018; external applicants will be considered during 2018-2019.)

University of Maryland Completer
MSDE CTE Completer
The Career-related Programme is the most recent addition to the IB. Its key aim is to provide a choice of different pathways for students in Grades 11 and 12. Modern life places complex demands on graduates entering further/higher education or employment. An integral part of the Career-related Programme is enabling students to become self-confident, skilled and career-ready learners. To prepare students to succeed in a rapidly changing world, schools must not only equip them with the necessary skills and the learning dispositions, but also the ability to manage and influence change. The Career-related Programme helps students to:

• develop a range of broad work-related competencies and deepen their understanding in specific areas of knowledge through their Diploma Programme courses.
• develop flexible strategies for knowledge acquisition and enhancement in varied contexts
• prepare for effective participation in the changing world of work
• foster attitudes and habits of mind that allow them to become lifelong learners willing to consider new perspectives
• become involved in learning that develops their capacity and will to make a positive difference.

Required Courses:
At least 2 IBDP courses at standard or higher level with one as a 2-year course; corresponding course exams (minimum score of 3) must be taken; completion of career-related studies pathway; completion of the IBCP Core, which includes Personal and Professional Skills Course, Reflective Project, Language Development, and service Learning

IBCP PERSONAL AND PROFESSIONAL SKILLS I
A295IB (old TOK1#) Grade Level 11 1 IB Credit
Personal and Professional Skills, a capstone course of the IBCP, provides a nexus for the learner to synthesize the approaches to understanding gained over the course of IB study. The course is designed to help students acquire transferable skills needed to successfully navigate the 21st century. This course engages students in the development of communication, critical thinking, intercultural understanding, and personal development. These components encourage self-reflection and cross-cultural connections through the themes of communities, technology, environment and workplace. Additionally, this two-year course will develop and utilize research skills necessary for the Reflective Project, initiate Service learning, create an original Language Development Portfolio related to their career-related study. Enrollment is limited to students who are International Baccalaureate Career-related Programme Candidates.
Prerequisite: International Baccalaureate Career-related Program Candidate.

PERSONAL AND PROFESSIONAL SKILLS II (FOR IBCP STUDENTS ONLY)
A296IB Grade Level 12 1 IB Credit
Personal and Professional Skills II is the second part of the capstone course required for the IBCP. PPS II builds upon the IB Approaches to Learning in the senior year, focusing heavily on the completion of the Career-Related Program’s Core, which includes the Service Learning portfolio, the Language Development portfolio, and the Reflective Project. Specifically, the critical thinking skills, intercultural understanding, and self-reflection aspects of these activities will help students to prepare for college or career. Successful completion of this course and the Core components of the IBCP are required to earn the IBCP certificate.
Prerequisite: PPS I, Candidate for the IBCP
Additional Educational Opportunities
The peer helper program offers adolescent students an opportunity to speak with another student who has received training in communication/listening skills, who is aware of the various agencies and services available to help youth, and who recognizes potentially serious problems and can refer students to the professional school counselor. Peer helpers are familiar with the use of the career materials available in the Counseling Center. They are scheduled one period each day to work in the Counseling Center. During that time, they should be available to meet with individual students who have concerns they wish to discuss. Students are scheduled to provide career information, give tutorial assistance when able, assist new students to become oriented to the school building and school procedures, and meet with the school counselor to share concerns about the students with whom they are working. This course is graded as Pass/Fail.

A030  Grade Level 9, 10, 11, 12
Study Hall is designed to provide students with time to complete additional assignments.

A035  Grade Level 11, 12  1 Elective Credit
Peer tutors are scheduled daily to tutor high school students individually or in groups. A teacher monitors the tutors’ instructional skills regularly for effectiveness. This course is graded as Pass/Fail.

A037 Grade Level 11, 12  1 Credit (Pass/Fail)
Advanced Study Skills is a course specifically designed for students taking Advanced Placement courses for the first time or students with extensive Advanced Placement schedules. This course is designed to provide skills that improve capacity to manage increased scholastic responsibilities and improve academic performance. Course content includes study and organizational skills, short- and long-range planning for projects, test-taking skills, and monitoring of assignments. Teaching staff monitors progress in all AP courses and designs an individualized program of success as needed.

A043  Grade Level 10, 11  1 Elective Credit
College Preparation is designed to assist students in preparing for entrance to college and to build the skills for college readiness. Curriculum includes exploring options for college study, developing critical math, reading, and writing skills necessary for college entrance exams and researching scholarship and financial aid options. Students develop study habits and organizational skills to prepare for a successful college experience.

A044  Grade Level 9  1 Elective Credit
AVID I is open only to students who have been selected for the AVID program via the application and interview process. In this yearlong course, students learn organizational and study skills, work on critical thinking and asking probing questions, receive academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable. The AVID curriculum is driven by the WICOR method: writing, inquiry, organization, collaboration, and reading.

A044II  Grade Level 10  1 Elective Credit
The course is for newly selected or continuing students in the second year of the AVID program. In this yearlong course, students continue to learn and practice organizational skills, study skills, and WICOR skills: writing, inquiry, organization, collaboration, and reading. They continue to develop inquiry skills and critical thinking skills as they improve their reading and writing in the content areas. Students are provided support for their honors or Advanced Placement level courses through the AVID tutoring process.

A045  Grade Level 9, 10, 11, 12  1 Elective Credit
Instructional Help is designed to provide skills that improve a student’s capability to manage school tasks and improve academic performance. Course content includes study skills, organizational tasks, short and long range planning for projects, test-taking skills, monitoring of assignment. Specific skills may include but are not limited to scanning, outlining, proofreading, editing, checking work for accuracy, identifying problems, and appropriate techniques to seek assistance. Instruction and support in specific academic or social skills to enhance academic success may also be provided as needed. Skills for independence are the focus of this class. Teaching staff monitors progress in academic courses and designs an individualized program as needed. Instructional help may be offered as a general or special education option.

A046 Grade Level 10, 11, 12  1 Elective Credit
Academic Skills and Concepts provides students opportunities to prepare for demanding MCAP in Algebra, Science, English and Government. Students review content and practice skills learned in MCAP required courses in preparation for testing. Students develop their critical reading, writing, and thinking skills as they build essential knowledge through focused directed and independent learning activities. Senior students may also complete modules as part of fulfilling the MCAP (Bridge Plan).
AVID TUTOR
A049  Grade Level 11, 12  1 Elective Credit (Pass/Fail)
AVID (Advancement Via Individual Determination) Tutors collaborate with the AVID Elective Teacher to help prepare students for success in advanced-level coursework and to plan for the four-year university experience. Becoming an AVID tutor affords potential education majors the opportunity to begin preparing for the field. AVID tutors receive 16 hours of AVID Tutorology with tutor trainings both in and out of the classroom. Experiences may include work with middle school AVID students. The responsibilities of running a Socratic Seminar with small groups of students and learning the Cornell note-taking format will greatly benefit AVID tutors during their own college experience, even if they ultimately select a field other than education.
Prerequisite: Success in Advanced Placement coursework.

TEACHER AIDE
A050  Grade Level 12  1-4 Elective Credits
Teacher Aide is open to seniors who are interested in a career in teaching or some area related to working with children. Students may register for no more than two periods per semester. They must act as role models to younger students. Students are afforded opportunities to observe a variety of teaching and learning styles. They are assigned a cooperative teacher in an elementary, middle, or high school who evaluates their quality of work. Students work directly in the classroom by instructing students. This program is designed to provide students an opportunity to explore, discover, and evaluate their own aspirations and potential. A journal may be required.
Prerequisite: 3.0 average, counselor’s recommendation, and principal’s permission from both schools.

AIDE
A055  Grade Level 12  Non-Credit
Aides are students who provide assistance to teachers, offices and the media center (library). Duties include developing bulletin board displays, working with individual students who need remedial help, answering telephones, running messages, escorting visitors, aiding secretaries and other duties as they may develop. Aides assigned to specific areas in the building are to remain in those areas.

AVID III
A058  Grade Level 11  1 Elective Credit
AVID III focuses on the college application process, including college admissions tests, financial aid, college entrance requirements, and career planning. Students engage in higher levels of WICOR (writing, inquiry, organization, collaboration, and reading) as well as build analytical writing skills. Through self-reflection in AVID III, students will research and identify those colleges that best fit their academic and career profiles and goals.

AVID IV
A059  Grade Level 12  1 Elective Credit
The AVID IV class refines those critical thinking, reading, and writing courses—advanced level WICOR (writing, inquiry, organization, collaboration, and reading) necessary for success in Advanced Placement coursework and optimal performance on AP exams. College preparedness is the chief focus of AVID IV as students are now fully aware of their academic strengths and personal interests and must plan their post-secondary learning experiences accordingly. Students complete the college application process during this final year of AVID and engage in additional research to better understand the variety of financial aid resources that may be available to them.

INSTRUCTIONAL ENRICHMENT
A060  Grade Level 9, 10, 11, 12  1 Elective Credit
Instructional Enrichment provides support for students needing additional support. This course is to be recommended through the Individualized Education Program (IEP) team for students with a disability, or through the Classroom Focused Improvement Process for non-disabled students. Individualized targeted instruction shall occur during this course to include pre-teaching, re-teaching, and individualized interventions on a daily basis. Elective Credit may be awarded when the class involves specific skills/content instruction as stated in the state curriculum and core learning goals. This course may be taken for credit once a year for four years.

YEARBOOK
A070  Grade Level 11, 12  1 Elective Credit
Yearbook is a course designed to produce the student annual. Skills in artistic design, photography, graphics, marketing and entrepreneurship are developed.

EDUCATIONAL RELEASED - TIME PROGRAM
A085  Grade Level 12  Non-Credit
Educational Release - Time Program is for students attending an educational institution, such as Hagerstown Community College, outside the scope of the regular high school during their senior year or that are on a work based learning educational experience.
READING INTERVENTION
A100  Grade Level 9, 10, 11, 12                1 Elective Credit
Reading intervention is provided to students who struggle with decoding, fluency, vocabulary, and/or comprehension. Each struggling reader is assessed through a variety of measures to determine his/her instructional needs, and then a plan is developed and implemented by the literacy team to meet his/her needs. An intervention plan may be customized through instruction to address each students needs or it may be delivered through an intervention program such as Wilson Reading or Just Words. Students who require reading intervention are identified through analysis of testing data and through the recommendations of teachers and parents. Reading intervention is graded as Pass/Fail.

READING
A100R  Grade Level 9, 10, 11, 12                1 Elective Credit
Reading is a course for students who require more targeted reading instruction and time to access the high school English curriculum. Students in this class read high-interest texts that are at their independent reading level for sustained periods under the direction of the reading teacher or a reading specialist. Students also receive small-group targeted instruction based on periodic assessments of their specific reading gaps. Reading intervention programs may be delivered through this class as appropriate.

IB PROGRAMME ENRICHMENT
A048IB  Grade Level 11, 12                1 Elective Credit (Pass/Fail)
IB Programme Enrichment is a course for IB Diploma, anticipated, and course students at North Hagerstown High School designed to provide skills that improve capacity to manage increased scholastic responsibilities and improve academic performance. Course content includes study and organizational skills, short- and long-range planning for projects, test-taking skills, and monitoring of assignments. Teaching staff monitors progress in all IB courses and designs an individualized program of success as needed.

AP SEMINAR
A998AP  Grade Level 10                1 AP Elective Credit
AP Seminar is only offered at Clear Spring High School. This first course is part of the AP Capstone and is designed by the College Board to parallel college-level courses in critical thinking and communications. AP Seminar provides students with the opportunity to explore complex, real-world issues through cross-curricular lenses. Course topics vary and may include local, civic, or global issues and interdisciplinary subject areas. Courses typically emphasize research, communication, and critical-thinking skills to explore the issues addressed. Students may also examine source materials such as articles and other texts; speeches and personal accounts; and relevant artistic and literary works. Successful AP Research students, ones who have completed the course and passed all required assessment components, will be permitted to take the second course of the AP Capstone: AP Research.

AP RESEARCH
A999AP  Grade Level 11                1 AP Elective Credit
AP Research is only offered at Clear Spring High School. This is the second required course in the AP Capstone. AP Research allows students to deeply explore an academic topic, problem issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, participants further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Student reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000 to 5,000 words, (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense. (Source: The College Board, 2017)
Prerequisite: Successful completion of AP Seminar.

MATH INTERVENTION
A095/A095SM  Grade Level 9, 10, 11, 12                1 Elective Credit
Students who require specialized instruction and other supports are provided math interventions for the development of calculation or problem solving skills. Each student who requires this level of intervention is assessed through a variety of measures to determine the specific needs, and then a plan is developed and implemented by the instructional team to meet those needs. This can be addressed through a customized instructional plan and/or a structured intervention program. For students with disabilities in the area of math, math intervention will specifically target the goals that have been developed to address the identified disability-related area(s) of need.
The decision to award a student with disabilities a Maryland High School Certificate of Program Achievement will not be made until after the beginning of the student's last year in high school unless the student is participating in the alternative Maryland School Assessment Program (Alt-MSA).

[COMAR 13A.03.02.09D (3)]

The Maryland High School Certificate of Program Achievement shall be awarded only to students with disabilities who cannot meet the requirements for a Maryland High School Diploma, but who meet the following standards:

1. The student is enrolled in an education program for at least four years beyond grade 8 or its age equivalent, and is determined by an IEP team, with the agreement of the parents of the student with disabilities, to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life, including but not limited to:
   • Gainful employment;
   • Work activity centers;
   • Sheltered workshops; and
   • Supported employment; or

2. The student has been enrolled in an education program for four years beyond grade 8 or its age equivalent and will have reached age 21 by the end of the student's current school year. [COMAR 13A.03.02.09D]

COURSE DESCRIPTIONS

ESSENTIALS OF ENGLISH
A741-744 Grade Level 9, 10, 11, 12 Non-credit
This course is individually structured to improve each student's listening, speaking, reading, and writing skills. The course emphasizes functional skills such as application completion, letter writing, and reading associated with independent living. Instruction takes into account the learning style of each student and addresses the goals and objectives in the student’s IEP. Sub-skills are congruent with Maryland College and Career-Ready Standards.

ESSENTIALS OF SOCIAL STUDIES
A745-748 Grade Level 9, 10, 11, 12 Non-credit
This course is individually structured to improve each student’s understanding of social studies related topics. Instruction provides students with opportunities to improve daily independent living skills such as map reading and related vocabulary. The basic structure and principles relating to a democratic government and the rights and responsibilities of American citizenship will be explored. Instruction takes into account the learning style of each student and addresses the goals and objectives in the student's IEP. Sub-skills are congruent with Maryland College and Career-Ready Standards.

ESSENTIALS OF MATH
A749-752 Grade Level 9, 10, 11, 12 Non-credit
This course is individually structured to improve each student's basic arithmetic and mathematical operation skills. Instruction takes into account the learning style of each student and addresses the goals and objectives in each student's IEP. The course emphasizes functional concepts such as money, time, and measurement. Instruction takes into account the learning style of each student and addresses the goals and objectives in the student's IEP. Sub-skills are congruent with Maryland College and Career-Ready Standards.

ESSENTIALS OF SCIENCE
A753-756 Grade Level 9, 10, 11, 12 Non-credit
This course is individually structured to improve each student’s understanding of science related topics. Instruction provides students with opportunities to improve social skills, solve problems, actively engage in learning, and participate in discussions. Integrated units make the content relevant and applicable to real-world situations. Instruction can be transferred to other applications for students to understand their world and better define their place in it. Instruction takes into account the learning style of each student and addresses the goals and objectives in the student’s IEP. Sub-skills are congruent with Maryland College and Career-Ready Standards.

LIFE SKILLS
A765 Grade Level 9, 10, 11, 12 Non-credit
This course is individually structured to improve each student's skills in the areas of independent living, adaptive skills, communication, self management, leisure and social skills. It emphasizes specially designed instruction and functional skills to promote community integration and independence for adulthood. Instruction takes into account the learning style of each student and addresses the goals and objectives in the student’s IEP. Sub-skills are congruent with Maryland College and Career-Ready Standards.
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IB Core A297IB 37
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IB English (Part 2) (SL) A109IB 26
IB Environmental Systems and Societies (SL) A444IB/A441IBSM 54
IB French (HL) A522IB 59
IB French (Part 1) (SL) A510IB 58
IB French (Part 2) (SL) A511IB 58
IB German (HL) A520IB 59
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IB German (Part 2) (SL) A519IB 58
IB Informational Technology in a Global Society (SL) A200IB 47
IB Mathematics (SL) A340IB 43
IB Mathematics HL I A343IB 43
IB Mathematics HL II A344IB 43
IB Mathematics Studies (SL) A337IB 43
IB Music (Part I) A691IB 67
IB Music (Part II) A692IB 67
IB Philosophy HL A293IB 37
IB Philosophy SL A292IB 37
IB Physics (Part 1) (SL) A429IB 53
IB Physics (Part 2) (SL) A430IB 53
IB Programme Enrichment A048IB 110
IB Psychology (SL) A284IB 37
IB Spanish (HL) A560IB 59
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IB Spanish (Part 2) (SL) A541IB 58
IB Sports Exercise and Health Sciences (SL) A713IB 73
IB Visual Arts (Part 1) (HL, SL) A633IB 64
IB Visual Arts (Part 2) (HL) A634IB 64
IB World History HL (Part 1) A290IB 37
IB World History HL (Part 2) A291IB 37
IBCP Personal and Professional Skills I A295IB 105
IBCP Personal and Professional Skills II A296IB 105
Instructional Enrichment A060 109
Instructional Help A045 108
Integrated Physics and Chemistry A420 52
Interactive Multimedia Production A1031/A1031SM 85
Intermediate Algebra A312BC 41
Intermediate English Learner (EL) A182 29
Internship/Capstone Experience A1027 98
Introduction to Agriculture, Food, and Natural Resources A1020 94
Introduction to Automated Manufacturing Systems A987 102
Introduction to Construction and Design A934 88
Introduction to Education (HCC Dual Credit) A846 97
Introduction to Engineering Design A855 101
Introduction to Engineering Design (Project Lead the Way) A855 103
Introduction to IBDP Core A052IB 38
Introduction to Statistics A336 42
IT Essentials A1060 99
Jazz Ensemble A667 68
Journalism I A122 24
Journalism II A124 25
Latin I A522 59
Latin II A524 59
Latin Independent Study A531H 60
Life Skills A765 111
Local, State, and National Government A206 33
Machine and Metal Processing I A859 101
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Appendix
**WCPS Sample Honors/AP Courses for College Bound Students**

In building their 4-year high school plan, students should challenge themselves to the best of their abilities. Students intending to apply to colleges should be aware that a strong transcript (including the highest level courses offered) is one of the top criteria for admissions decisions.

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- Electives can be courses that lead to a Career & Technology completer or that focus on student academic interests in one or more areas (additional arts classes, academic electives, a second world language, or an approved HCC ESSENCE class).
Sample Pathway for a Student Focused on World Languages and AP Classes

*(Course offerings daily and schedules vary at each school based on student demand and site-based programs.)*

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<tr>
<td>2</td>
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<td>4</td>
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<tr>
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<td>3</td>
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<tr>
<td>4</td>
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<tbody>
<tr>
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<td>AP Sci. Lab</td>
<td>College Prep</td>
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<tr>
<td></td>
<td>A-Day</td>
<td>B-Day</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
<td>AP English Literature</td>
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<tr>
<td>5</td>
<td>AP U.S. History</td>
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<td>6</td>
<td>AP Environmental Science or AP Physics 2</td>
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### Sample Pathway for a Student Focused on Band and AP Classes

*(Course offerings vary at each school based on student demand and site-based programs.)*

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<tr>
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<td>Honors Geometry</td>
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<td>4</td>
<td>Honors Biology</td>
</tr>
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<td>5</td>
<td>Honors U.S. Studies</td>
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<td>Honors English 10</td>
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<td>Honors Algebra II</td>
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<td>Honors Government</td>
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<td>3</td>
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<td>B-Day</td>
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<td>AP Science</td>
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<td>4</td>
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<td>AP Music Theory</td>
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Sample Pathway for a Student with Reading Courses and a Dual Completer

(Course offerings vary at each school based on student demand and site-based programs.)

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<td>Geometry</td>
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<td>Government</td>
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<td>Psychology</td>
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<td>5</td>
<td>Fish &amp; Wildlife</td>
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<td>Forestry &amp; Soils</td>
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<td>6</td>
<td>Spanish 2</td>
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HAGERSTOWN COMMUNITY COLLEGE/WASHINGTON COUNTY PUBLIC SCHOOLS

ARTICULATED COURSE CERTIFICATION

Please complete this form for students to be granted articulated credit. Students should submit the completed form to the Office of Admissions, Records and Registration during the first semester of enrollment at Hagerstown Community College. Application for articulated credit must be submitted within twelve months of high school graduation.

This is the certify that: ___________________________________________ Social Security # _______________________

(Student Name)

Year of Graduation: ______________________

has successfully completed the following courses based upon the Articulation Agreement between Washington County Public Schools and Hagerstown Community College, and it is recommended that credit be awarded within time limits set by the college.

List applicable course(s) and grades:

<table>
<thead>
<tr>
<th>Secondary Courses Certified</th>
<th>College Courses Articulated</th>
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<tbody>
<tr>
<td>Number</td>
<td>Title</td>
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<tr>
<td>______</td>
<td>______</td>
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<td>______</td>
<td>______</td>
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<td>______</td>
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</tbody>
</table>

Other Comments:
____________________________________________________________________________________________
____________________________________________________________________________________________

The undersigned certify that the student has met the criteria as defined in the Articulation Agreement (Year of _____), signed by representatives from Washington County Public Schools and Hagerstown Community College.

Instructor (Print Name)  Date  School Counselor (Print Name)  Date

Instructor (Signature)  Date  School Counselor (Signature)  Date