

HIGH SCHOOL 2023-24 PROGRAM OF STUDIES

WCPS

Washington County
Public Schools



*Preparing Students
for College & Career*

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Students,

You are embarking on a pivotal time in your academic career. The pathways you choose in high school will provide you with opportunities for the most successful future, whether you would like to pursue higher education, a career, the military, or other endeavors after graduation.


Washington County Public Schools (WCPS) offers diverse learning options to meet the unique skills, abilities, and interests of our students. In this Program of Studies, you will discover traditional courses, special programs, and other enriching educational experiences. You can review the general course descriptions, graduation requirements, University System of Maryland requirements, and Career and Technical Education (CTE) Completer program information. These considerations will help you make the best plan for your education and your future.

No student has to develop a plan on your own. Your school counselors will help you chart your specific course of action by selecting courses that meet your academic interests and complement your strengths and passions. There is a sample secondary education plan at the back of this booklet. This will give you an idea of how you can lay out the years ahead of you to ensure you make the most of your high school opportunities. This is also an ideal time to explore various academic options and choose challenging courses that will prepare you for life beyond graduation.

You have a team of educators who are rooting for you! Your teachers, counselors, and school administrators are excited to watch you grow in your education and to see you achieve at your highest potential. If you, your parents or guardians have questions about the registration process, graduation requirements, or program options, please contact your school counselor.

I wish you all the best in your pursuits this year and beyond.

Sincerely,



Dr. David T. Sovine
Superintendent of Schools

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The Program of Studies is meant to guide a student during their four years of High School. The Superintendent or Superintendent's Designee has the right to update and make changes to the Program of Studies as necessary.

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 assessment requirements
- 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:

GRADUATION REQUIREMENTS

SUBJECT	REQUIREMENTS	ASSESSMENT	CREDITS
ENGLISH	<ul style="list-style-type: none"> • English 9-12 (or Honors English 9-12) 	<i>English 10 MCAP</i>	4
MATHEMATICS	<ul style="list-style-type: none"> • 1 Algebraic concepts • 1 Geometric concepts • 2 additional Mathematics credits • Students shall enroll in a mathematics course in each year of high school 	<i>Algebra 1 MCAP</i>	4
SCIENCE	<ul style="list-style-type: none"> • Biology (Life Science) • 2 additional Science credits 	<i>Life Science MISA</i>	3
SOCIAL STUDIES	<ul style="list-style-type: none"> • 1 United States Studies II • 1 Local, State, and National Government • 1 World History 	<i>Government MCAP</i>	3
PHYSICAL EDUCATION	<ul style="list-style-type: none"> • Physical Education I 		1
HEALTH/LIFE SKILLS	<ul style="list-style-type: none"> • Health Education with Financial Literacy 		1
FINE ARTS	<ul style="list-style-type: none"> • Any Fine Arts course 		1
TECHNOLOGY EDUCATION	<ul style="list-style-type: none"> • Foundations of Technology or Foundations of Computer Science 		1
ELECTIVES	<ul style="list-style-type: none"> • Any elective courses 		6

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. Financial Literacy does not meet this requirement. This final mathematics course must be taken during the regular school year in the student's fourth year.

Maryland Comprehensive Assessment Program (MCAP)

Students must take MCAP assessments for English 10, Algebra I, Science, and Government.

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.

High School Assessments

Beginning with the 2023-2024 school year:

1. Students enrolled in Biology and/or Government courses will take a required end of the course assessment that will account for 20 percent of the student's final grade.
2. Students enrolled in Algebra I, Geometry, Algebra II, and English 10 are required to take an end of the course assessment to determine college and career readiness.

Students must participate in MCAP assessments for ELA, Math, Life Science, and Government to meet graduation assessment requirements.

Alternate Assessment ELA and Math and Alternate Maryland Integrated Science Assessment (Alt-MISA)

The Alternate Assessment for English/language arts and mathematics are administered in grades 3 through 8 and 11. The Alt-MISA is administered in grades 5, 8, and 11. Students who participate in the alternate assessments have been determined eligible for participation by their IEP teams and must participate in all three content areas.

College and Career Ready (CCR) Determination

A student is considered CCR when the student meets standards in English Language Arts and Mathematics that enables the student to be successful in an entry-level credit-bearing course or postsecondary training at a community college. In order to measure if a student is on track for college and career readiness, federal and state laws require all students in high school to participate in English and Mathematics assessments. These assessments are called the Maryland Comprehensive Assessment Program (MCAP) in Maryland.

Students who achieve CCR will have the opportunity to pursue no-fee pathways that include earning up to 60 credits at Hagerstown Community College, enrolling in competitive entry college programs such as Advanced Placement (AP) and International Baccalaureate (IB) courses, and/or earning industry-recognized credentials that prepare students to join highly sought and well-paid professions.

Washington County gives local assessments that identify students who are not on track to be CCR in English Language Arts (ELA) and mathematics. Students who are not on track to be CCR will receive supplemental instruction in English and mathematics. Most students who qualify for supplemental instruction will receive it during their math and ELA classes. In some cases, students will participate in an additional intervention class and receive tutoring services before or after school. WCPS also offers summer school opportunities for students as well.

GRADING/HONORS RECOGNITION

Grading

The Board of Education recognizes its responsibility for assuring the practice of regularly reporting the progress of students as they proceed through their formal educational experiences. Such reporting has several purposes: 1) to inform students and their parent(s) or legal guardian(s) of academic progress and needs with regard to the instructional program, 2) to give a parent(s) or legal guardian(s) needed insights into their student's academic achievement, progress, and standing, 3) to provide teachers with information about the progress and needs of students in their classes, 4) to provide staff with information about the progress and needs of students, and 5) to inform colleges or prospective employers of the nature of a student's educational program and their achievement.

- **A** (90-100%) indicates performance that consistently exceeds Washington County standards and requirements
- **B** (80-89%) indicates performance that consistently meets and occasionally exceeds Washington County standards and requirements
- **C** (70-79%) indicates performance that meets Washington County standards and requirements
- **D** (60-69%) indicates performance that minimally meets Washington County standards and requirements
- **F** (0-59%) indicates failure to meet Washington County standards and requirements

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).

GRADE	NON-WEIGHTED QUALITY POINT VALUE	ACCELERATED QUALITY POINT VALUE	AP, IB, and 200 LEVEL DUAL CREDIT QUALITY POINT VALUE
A	4.0	4.72	5.0
B	3.0	3.54	4.0
C	2.0	2.36	3.0
D	1.0	1.18	2.0
F	0.0	0.00	0.0

Honor Rolls and Graduation Honors

Policy IKD Honor Rolls and Graduation Honors is currently under review. The electronic version of the Program of Studies will be updated with the revised policy.

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) and one additional Math course beyond Algebra II
- 3 credits of Science (Biology, Chemistry, and one additional lab science-Physics preferred)
- 3 credits of Social Studies (from among: U.S. History, World History, Government and Economics)
- 2 credits of the same World Language
- Minimum 3.0 G.P.A. or higher

SCHEDULING/CREDIT OPTIONS

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

Credits from Middle School

Credit will be awarded for courses taken prior to enrollment in high school in each academic curricular area 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.

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 Boyd J. Michael, III 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 asynchronously. 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).

ACADEMIC ELIGIBILITY

1. Students enrolled in a WCPS high school or the Early 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 core courses completed before the seventh semester; seven of the ten must be in English, math or natural/physical science.
- These 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 must earn at least a 2.300 GPA in NCAA core courses to be eligible to compete in their first year of college.
- 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.

PROGRAMS FOR ADVANCED LEARNERS AND GIFTED AND TALENTED EDUCATION (GATE) STUDENTS

WCPS provides multiple opportunities for our advanced and gifted learners. These opportunities include: Magnet Programs, Career Technology Education (CTE) Academies and Completers, Honors Courses, Advanced Placement Courses, and Early College Options. For additional information visit our website tinyurl.com/wcpsadvancedprograms.

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 CogAT results and multiple criteria of ability/aptitude, performance, and potential.

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.

Magnet Programs

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 7 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.

Required Courses:

Seven Advanced Placement classes including AP Government, AP U.S. History, Leadership Workshops, School and Community based projects.

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.

Required Courses:

To earn the AP Capstone Diploma™: AP Seminar (score of 3 or higher); AP Research (score of 3 or higher); at least 4 additional AP Courses with exam scores of 3 or higher
To earn the AP Seminar & Research Certificate™: AP Seminar (score of 3 or higher); AP Research (score of 3 or higher); take at least 4 AP Courses.

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 offers students training in eight areas of concentration with rigorous, comprehensive, college preparatory curriculum rooted in intense, pre-professional training in the arts that encourages excellence and success as students, artists and cultural leaders.

Barbara Ingram School for the Arts, a US News and World Report Gold Medal school, was ranked eighth among Maryland Schools. Students have the opportunity to take Advanced Placement coursework and exams. The AP participation rate at BarbaraIngram School for the Arts is 94%. The total minority enrollment is 25%, and 20% of students are economically disadvantaged.

The school has a unique admissions process designed to identify students with a passion for the arts — no academic criteria are used. However, once students are admitted, they must all pursue a rigorous academic curriculum. Students can access free tutoring and test preparation to meet academic and artistic benchmarks. BISFA student test scores are consistently among the highest in the county and state. Graduation and college placement rates are near 100%.

BISFA offers eight departments of concentration in three areas:

FINE ARTS

Creative Writing and Visual Arts

PERFORMING ARTS

Dance, Instrumental Music, Theatre, and Vocal Music

TECHNICAL ARTS

Photography and Cinematography (CTE Completer) and Computer Game Design and Animation (CTE Completer)

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 course 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 each 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.

Required Courses:

Six required IB courses; 3 at standard level and 3 at higher level, Theory of Knowledge course, Extended Essay, Creativity, Activity, and Service projects. Students will undertake the Middle Years Programme Personal Project in Grade 10.

Washington County Public Schools & Hagerstown Community College

EARLY COLLEGE DEGREE PROGRAMS

Washington County Public Schools (WCPS) and Hagerstown Community College (HCC) work in partnership to provide WCPS students with opportunities to earn college credit while in high school. High Schools students may take classes in a dual-credit class at their high school, on HCC's campus, or in select off-campus locations. The dual-credit classes are those that award both high school credit and college credit. The agreement between Washington County Public School System and Hagerstown Community College allows students to earn up to 60 college credits while enrolled in high school.

Degree Programs

An Associate of Science (AS) and Associate of Arts (AA) degrees are 2-year degrees offered by most community colleges and some 4-year colleges. Most AS and AA degrees are transfer degrees as they provide an academic foundation. To make the transfer process easier, many community colleges have transfer agreements with 4-year institutions. These agreements often ensure that the credits earned while completing an AS or AA degree meet the general education requirements at the transfer institution. Students and Parents should always check with 4-year institutions to see if and how Hagerstown Community College credits transfer. Some dual credit classes may not transfer to other colleges and institutions. The following are some of the AA or AS degrees offered through Hagerstown Community College.

- Biology, Associate of Science Degree
- Business Administration, Associate of Science Degree
- Chemistry, Associate of Science Degree
- Computer Science, Associate of Science Degree
- Cybersecurity, Associate of Science Degree
- Dance, Associate of Arts Degree
- General Studies, Associate of Arts Degree
- Engineering, Associate of Science Degree
- Environmental Studies, Associate of Science Degree
- Mathematics, Associate of Science Degree
- Elementary/Special Education, Associate of Arts in Teaching
- Secondary Education - English, Associate of Arts in Teaching
- Secondary Education Math, Associate of Arts in Teaching*
- Secondary Education Science, Associate of Arts in Teaching*
- Physics, Associate of Science Degree
- Theater, Associate of Arts Degree
- Visual Arts, Associate of Arts Degree

*Pathway will need to be created by HCC.

Other Degree Programs

The Associate of Applied Science (AAS) degree prepares graduates to enter a career immediately after graduation. Since the AAS degree prepares graduates for the workforce, the curricula was not developed with a student transferring to a four year college upon completion. As a result, the transfer process for AAS degree graduates is often more difficult. In addition, HCC offers courses to obtain and renew certification or licensure. WCPS is partnering with HCC to make the following programs available for WCPS students.

- CDL-B-Certificate (Certificate)
- Certified Nursing Assistant (Certificate)
- Digital Instrumentation and Process Control, Associate of Applied Science (certificate)
- Biotechnology Associate of Applied Science
- Electronic Health Records (certificate)
- Health Information Management, Associate of Applied Science
- Mechanical Engineering Technology, Associate of Applied Science

Source: American Association of Community Colleges. The associate degree. AACCC Policy Statement 1998:2.

Dual Credit

Qualifying students can take designated dual credit courses that are taught in high school or HCC. Some courses may be available online. Upon successfully completing a dual credit course, students will be awarded both high school and college credit and the grade will be calculated in the high school grade point average. Below are dual Credit courses taught in WCPS high schools.

English	Math	Science	Social Studies
ENG 101 English Composition	MAT 109 Statistics	BIO 116 Advanced Anatomy and Physiology	GEO 105 AP Human Geography (Regional Geography)
ENG 102 Advanced English Composition	MAT 115 Quantitative Reasoning	PHS 113 Marine Science/Oceanography	HIS 201/202 AP US History (United States History I/II)
ENG 112 Technical Writing	MAT 160 Precalculus I	BTC 103 Forensic Science	POL 101 AP Government (American Government)
COM 103 Public Speaking	MAT 161 AP Precalculus (Precalculus II)	ENV 201 and ENV 202 AP Environmental Science	HIS 102 AP World History (World History Since 1500)
		ENC 201 and ENV 202 IB Environmental Systems in Societies	ECO 201/202 AP Economics (Microeconomic Macroeconomic Principles)
			HIS 207 The Civil War
			POL 103 Mass Media and Democracy
			PSY 101 Honors Psychology (General Psychology)
			SOC 101 Honors Sociology (Introduction to Sociology)

Art	Dance	Music	Theatre
ART 101 Intro. to Vis. Art*	DNC 101 Dance Appreciation	MUS 115 Music Appreciation	THR 114 Theater History
Art 120 Ceramics I*	DNC 115 Ballet I (BISFA)	MUS 180 History of Rock and Roll	
ART 102 AP 2D Art and Design* (2D Design)	DNC 118 Modern I (BISFA)		

W.L American Sign Language	W.L French	W.L German	Japanese
ASL 101 American Sign Language I	FRN 201 and 202 French IV/IB 1	GER 201 and 202 German IV/IB 1	JPN 201 and 202 Japanese IV**
ASL 102 American Sign Language II			

W.L Latin	W.L Spanish
LTN 201 and 202 Latin IV**	SPN 201 and 202 Spanish IV/IB 1

Administration of Justice	Computer Science	Environmental Studies	Cybersecurity
ADJ 101 Introduction to Criminal Justice	CSC 134 AP Computer Science A (Introduction to JAVA)	ENV 101 Introduction to Sustainable Agriculture	CYB 210 Ethics in the Information Age
ADJ 104 Corrections in America	CSC 232 - Advanced C++ Programming		CYB 225 Tactical Perimeter Defense
ADJ 108 Introduction to Homeland Security	ELE 105 Microprocessors and Microcontroller		

Academy of Teaching Professions	Physical Education
EDU 101 Teaching as a Profession (Secondary)	EDU 103 Teaching as a Profession (Elementary)
EDU 114 Human Growth and Development through Adolescence	EDU 240 Education Academy Internship

Grading

The final grades earned in the core courses at H.C.C. will be calculated in the student's high school GPA, using the Accelerated 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 will be recorded on the student's high school transcript.

Tuition Rates to Hagerstown Community College

WCPS will cover the cost of tuition and books for all approved dual credit AS or AA Degree Pathway courses. WCPS will not cover the cost of tuition and books for Certificate or ATS Pathways that are not a part of the agreement between WCPS and HCC. Currently WCPS only has an agreement with Hagerstown Community College (HCC).

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. For additional information visit our website <https://sites.google.com/wcps.k12.md.us/advancedprograms/home>.

ARTICULATED COURSES

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	Artificial Intelligence AI and Cloud Computing Completer	Human Body Systems
Academy of Health Professions	Biomedical Innovation	IB Computer Science (SL)
Animal and Plant Biotechnology	Cisco IT Academy Completer	Interactive Media Production
AP Biology	Computer Design & Game Animation Development I & II	Marketing I & II
AP Calculus AB & AB&BC	Computer Integrated Manufacturing	Medical Intervention
AP Chemistry	Digital Electronics	Office Systems – Excel
AP English Language Composition	Early Childhood Education Child Development Associate	Principles of Accounting & Finance
AP English Literature Composition	Engineering Academy PLTW	Principles of Biomedical Sciences
AP English Language Composition	Engineering Design and Development	Principles of Engineering
AP Music Theory	Honors Accounting and Finance II	
AP Physics 2	Honors Earth and Space Science	
AP Statistics	Honors Physics	

Articulation Agreements are updated yearly and the most up-to-date copy can be found in the School Counseling Center. Some programs have articulation agreements with other institutions of higher education; interested students should check with their teacher or counselor.

SPECIALIZED PROGRAMS

The Washington County Family Center

The Washington County Family Center, which opened in 1995, is a community-based, child-centered and family-focused program empowering families with young children to become self-sufficient through education, parenting, and personal achievement. The Family Center is sustained through strong community partnerships beginning with its sponsoring agency, Washington County Department of Social Services, and including the Washington County Health Department, Washington County Public Schools (WCPS), Hagerstown Community College, and many other agencies and organizations.

The Family Center High School Credit Program provides educational and childcare support to pregnant and parenting teens. As an accredited program, the Family Center partners with WCPS to provide an alternative setting for eligible students to continue to work on earning credits towards a high school diploma. All students remain enrolled at the home school while attending the Family Center. The home school staff is responsible to maintain regular contact with students enrolled in this program and are responsible to ensure that students are scheduled for the correct classes and meet all other graduation requirements, including state assessments and student service learning hours.

School staff must contact the Family Center at 301-790-4002 to obtain information about student eligibility and the referral process.

Boyd J. Michael, III Technical High School Grades: 11 and 12 Career Technology Education Completer with University of Maryland Completer

Boyd J. Michael, III Technical High School is a comprehensive career technology and academic school for students in grades 11 and 12. Washington County Technical High School attracts students from across the county to its award-winning specialized completer programs. The application process is highly-competitive with specific requirements for course completion 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
- Academy of Teaching Professions
- Applied Manufacturing Engineering
- Artificial Intelligence (AI) and Cloud Computing
- Automotive Technology
- Carpentry
- Collision Repair
- CISCO Academy
- Cosmetology
- Culinary Arts
- Diesel Technology
- Early Childhood Professions
- Electrical Construction
- Fire and Rescue Academy
- Homeland Security Global Imaging and Communications Technology
- Homeland Security-Law Enforcement
- Academy of Health Professions
- Engineering Academy PLTW

ACADEMIES AND ADVANCED PROGRAMS

The Academy of Biomedical Sciences PLTW

Boyd J. Michael III 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.

Required Courses:

Biomedical Sciences I and
Biomedical Science II

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

The Academy of Health Professions

Boyd J. Michael III 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.

Required Courses:

Academy of Health Professions I and
Academy of Health Professions II
Advanced Anatomy and Physiology,
Advanced Biomedical Science, Any
AP Science Credit (AP Biology or AP
Chemistry strongly recommended),
Honors Pre-Calculus/Trigonometry, AP
Psychology or Honors Psychology

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 ground work 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.

Required Courses:

Introduction to Engineering Design,
Principles of Engineering, Aerospace
or Biotechnical Engineering or Digital
Electronics, and Engineering Design
and Development. Biology, Chemistry,
Algebra I, Geometry, Physics, AP
Chemistry and Honors Pre-Calculus/
Trigonometry are strongly recommended.

**Academy of Teaching Professions
North Hagerstown High School,
South Hagerstown High School,
Boyd J. Michael III Technical High School
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 Paraprofessional and the Praxis I exams.

Required Courses:

Human Growth and Development
Through Adolescence, Teaching as a
Profession, Foundations of Curriculum and
Instruction, Education Academy
Internship.

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 AP 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 AP courses and examinations, consult a school counselor or the Washington County Public Schools' Office of Advanced Programs. Information is also available at AP Central of the College Board website: www.collegeboard.com.

AVID (Advancement Via Individual Determination)

AVID is a four-year, in-school academic support and college readiness system that prepares students for college eligibility and success. AVID focuses on students in the academic middle 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 eases students on the college track into 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, and South Hagerstown.

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.

Required Courses:

Junior class standing.
NCCER Core NCCER
Level I NCCER Level
II
Expected internship / work experience

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.

Required Courses:

Honors Biology, Biotechnology,
Foundations of Environmental and
Agricultural Science, and courses in one
of the following pathways: Animal
Pathway (Production and Companion
Animal Veterinary Technology,
Veterinary Internship); Environmental
and Natural Resources Pathway (Aquatics
and Wildlife, Forestry, Soils and the
Environment)

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.

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, ReflectiveProject, Language Development, andService Learning.

Fire and Rescue Academy

Boyd J. Michael III 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 firefighting 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.

Required Courses:

Fire Emergency Medical Training/High School Cadet Level I, Fire Emergency Medical Training/High School Cadet Level II, Fire Emergency Medical Training/High School Cadet Level III.

Engineering Academy PLTW

Boyd J. Michael III 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:

College Preparatory Science and Mathematics concurrent with PLTW courses, Engineering Academy PLTW I, Engineering Academy PLTW II.



English Course Descriptions

English Course Descriptions 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.

ENGLISH PATHWAYS

4 CREDITS REQUIRED				
PATHWAY 1	9TH GRADE	10TH GRADE	11TH GRADE	12TH GRADE
	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS
	English 9	English 10	English 11	English 12
PATHWAY 2	Honors English 9	Honors English 10 ENG 10: AP Seminar	AP Literature and Composition AP Language and Composition English Composition / Honors English 11 Advanced English Comp / Honors English 12 Technical Writing / Gr 12 IB English Part 1 @NHHS ONLY IB English Part 2 @NHHS ONLY American Literature @HCC ONLY American Literature II @HCC ONLY Ethnic Voices in American Literature @HCC ONLY World Literature II @HCC ONLY	
ELECTIVES		Creative Writing	Creative Writing Journalism I Journalism II Public Speaking	

Dual Enrollment

High School English Suggested Pathways

ENGLISH 9

A102 Grade Level 9

1 English Credit

English Language Arts (9th grade) course is aligned with grade 9-10 Maryland College and Career-Ready Standards developing critical thinking, problem-solving, and analytical skills. The course is designed to build knowledge through content-rich and informational texts and literature. Reading and writing instruction is grounded in evidence from texts and focused on strategies. The course provides regular practice with complex texts and academic vocabulary. Writing instruction will focus on arguments to support claims, informative texts, and narratives. Students will be evaluating sources and formatting formal essays.

HONORS ENGLISH 9

A102H Grade Level 9

1 English Credit

Honors English Language Arts (9th grade) 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. The course studies texts in depth. Students independently read challenging works of fiction and literary non-fiction and engage in effective communication. Students will read for text significance and style with a focus on literary analysis, rhetorical analysis, and synthesis. Research and writing activities focus on using the writing process with an emphasis on editing and revision.

ENGLISH 10

A104 Grade Level 10

1 English Credit

English Language Arts 10 course is aligned with the Maryland College and Career-Ready Standards developing critical thinking, problem-solving, and analytical skills. The course is designed to build knowledge through content-rich and informational texts and literature. Reading and writing instruction is grounded in evidence from texts and focused on strategies. The course provides regular practice with complex texts and academic vocabulary. Writing instruction will focus on arguments to support claims, informative texts, and narratives. Students will be evaluating sources and formatting formal essays. Students must pass the Grade 10 MCAP to be considered College and Career Ready.

Prerequisite: Successful completion of English 9

HONORS ENGLISH 10

A104H Grade Level 10

1 English Credit

Honors English Language Arts (10th grade) 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. This course will provide an opportunity for students to gain skills, and background knowledge, and earn confidence for the AP's rigorous academic study. Students study a variety of literary genres as they 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 must pass the Grade 10 MCAP to be considered College and Career Ready.

Prerequisite: Successful completion of Honors English 9/English 9

AP SEMINAR: ENGLISH 10

A189AP Grade Level 10

1 English Credit

AP Seminar: English courses expose students to a variety of texts covering multiple genres, topics, and rhetorical contexts in a seminar-style setting. This course fosters students' ability to summarize and explain the ideas in a text by analyzing an author's perspective, rhetorical choices, and argumentative structure. Students evaluate a variety of literary, informational, and visual texts, and synthesize perspectives to develop evidence-based arguments. Students convey their findings through multiple written formats, multimedia presentation, and oral defenses.

Prerequisite: Successful completion of English 9

ENGLISH 11

A106 Grade Level 11

1 English Credit

English Language Arts (11th grade) course is aligned with grade 11-12 Maryland College and Career-Ready Standards developing critical thinking, problem-solving, and analytical skills. The course is designed to build knowledge through content-rich and informational texts and literature. Reading and writing instruction is grounded in evidence from texts and focused on strategies. The course provides regular practice with complex texts and academic vocabulary. Writing instruction will focus on arguments to support claims, informative texts, and narratives. Students will be evaluating sources and formatting formal essays.

Prerequisite: Successful completion of English 10

ENGLISH COMPOSITION 101 (Dual Credit)

A1089SM Grade Level 11, 12

1 Accelerated Credit

The course provides instruction that focuses on writing skills, evaluating and explaining ideas, conducting research, developing a research composition, and documenting research. Students will be given extensive practice in creating and revising their own compositions. Emphasis is placed upon Rhetorical Knowledge, Critical Thinking, Research, Processes, and Conventions. This course is for dual enrollment credit.

ENGLISH 12

A108 Grade Level 12

1 English Credit

English Language Arts (12th grade) course is aligned with grade 11-12 Maryland College and Career-Ready Standards developing critical thinking, problem-solving, and analytical skills. The course is designed to build knowledge through content-rich and informational texts and literature. Reading and writing instruction is grounded in evidence from texts and focused on strategies. The course provides regular practice with complex texts and academic vocabulary. Writing instruction will focus on arguments to support claims, informative texts, and narratives. Students will be evaluating sources and formatting formal essays.

Prerequisite: Successful completion of English 11

ADVANCED ENGLISH COMPOSITION 102 (Dual Credit)

A1088SM Grade Level 11, 12

1 Accelerated Credit

This course continues with the transferable writing skills gained in ENG 101. This course refines the writing process after the student's confidence is established. Emphasis is placed upon Rhetorical Knowledge, Critical Thinking, Research, Processes, and Conventions. This course is for dual enrollment credit.

Prerequisite: English Composition 101

ENGLISH TECHNICAL WRITING 112 (Dual Credit)

A188SM Grade Level 12

1 Accelerated Credit

This course provides instruction on the principles and mechanics of technical writing that enable students employed in business and industry to present technical information in an approved manner. It will provide students with a general review of English composition and reading for information as well. This course is for dual enrollment credit.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION

A115AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP English Literature and Composition courses enable students to develop critical standards for evaluating literature. Students study the language, character, action, and theme in works of recognized literary merit; enrich their understanding of connotation, metaphor, irony, syntax, and tone; and write compositions of their own (including literary analysis, exposition, argument, narrative, and creative writing). Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Honors English 10/English 10

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION

A116AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP English Language and Composition courses expose students to prose written in a variety of periods, disciplines, and rhetorical contexts. These courses emphasize the interaction of authorial purpose, intended audience, and the subject at hand, and through them, students learn to develop stylistic flexibility as they write compositions covering a variety of subjects that are intended for various purposes. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Honors English 10/English 10

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 10, 11, 12

1 Elective Credit

Creative Writing courses offer students the opportunity to develop and improve their technique and individual style in poetry, short story, drama, essays, and other forms of prose. The emphasis of the courses is on writing; however, students may study exemplary representations and authors to obtain a fuller appreciation of the form and craft. Although most creative writing classes cover several expressive forms, others concentrate exclusively on one particular form (such as poetry or playwriting).

PUBLIC SPEAKING AND FORENSICS (Dual Credit)

A152/A152SM Grade Level 10, 11, 12

1 Elective Credit

Public Speaking courses enable students, through practice, to develop communication skills that can be used in a variety of speaking situations (such as small and large group discussions, delivery of lectures or speeches in front of audiences, and so on). Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique, and development of self-confidence. This course offers students the opportunity to learn how to use oral skills effectively in formal and informal situations. Students learn such skills as logic and reasoning, the organization of thought and supporting materials, and effective presentation of one's voice and body. Often linked to an extracurricular program, these courses introduce students to numerous public speaking situations, and they learn the methods, aims, and styles of a variety of events (e.g., formal debate, Lincoln-Douglas debate, expository speaking, radio broadcast, oral interpretation, and dramatic interpretation). Participation in competition is encouraged, but not always required.

IB ENGLISH (PART 1) (HL)

A106IB Grade 11

1 IB Credit

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 of 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

1 IB Credit

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)



English Learner Course Descriptions

English Learner (EL) courses develop academic English language proficiency through narrating, explaining, arguing, and informing content from English language arts, mathematics, science, and social studies. Guided by WIDA English Language Development Standards and Maryland College and Career-Ready Standards, the WCPS EL program adjusts instruction to students' strengths and needs in order for ELs to communicate effectively in English with cultural proficiency, to achieve in academic subjects, and to fully acquire English. Proficiency in reading, writing, listening and speaking is measured annually on the Maryland Comprehensive Assessment Program (MCAP), ACCESS for ELLs assessment.

* These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

NEWCOMER EL

A180SM Grade Level 9, 10, 11, 12

1 World Language Credit

A180 Grade Level 9, 10, 11, 12

2 World Language Credits

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. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

Prerequisite: Level 1 Proficiency

BEGINNER EL

A181SM Grade Level 9, 10, 11, 12

1 World Language Credit

A181 Grade Level 9, 10, 11, 12

2 World Language Credits

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 literacy through 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. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

Prerequisite: Level 2 Proficiency

INTERMEDIATE EL

A182SM Grade Level 9, 10, 11, 12

1 World Language Credit

A182 Grade Level 9, 10, 11, 12

2 World Language Credits

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. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

Prerequisite: Level 3 Proficiency

ADVANCED EL

A184SM Grade Level 9, 10, 11, 12

1 World Language Credit

A184 Grade Level 9, 10, 11, 12

2 World Language Credits

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. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

Prerequisite: Level 4 Proficiency

ACCELERATED EL

A186SM Grade Level 9, 10, 11, 12

1 World Language Credit

A186 Grade Level 9, 10, 11, 12

2 World Language Credits

Developed for Long-Term English Learners, this course integrates high-interest subject-matter content to accelerate English literacy, language development, and academic vocabulary. Students will read and respond to multiple genres of text with a focus on comprehension, vocabulary development, and advanced grammatical structures needed to read and write academic, grade-level language. This course aligns with the Maryland College and Career-Ready English Language Development Standards. Students are enrolled upon recommendation of the EL teacher. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.

Prerequisite: Long Term ELs or at risk of becoming Long Term ELs

EXTENDED EL

A187SM Grade Level 9, 10, 11, 12

1 World Language Credit

A187 Grade Level 9, 10, 11, 12

2 World Language Credits

ELs will develop academic and communication skills necessary for success in all content areas. This course reinforces the academic language of English, math, social studies, and/or science and provides state assessment support aligned to WIDA standards. These courses will not count for the University of Maryland Completer Program but credits will count towards graduation and ninth grade on track.



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.

SOCIAL STUDIES PATHWAYS

3 CREDITS REQUIRED				
9TH GRADE		10TH GRADE	11TH GRADE	12TH GRADE
PATHWAY 1	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	
	U.S. Studies II	Local, State & National Government	World History	
PATHWAY 2	Honors U.S. Studies II	Honors Local, State & National Government	Honors World History	see electives below
	AP U.S. History 📖	AP U.S. Government & Politics 📖	AP World History 📖	
ELECTIVES	AVAILABLE 10TH GRADE YEAR		ELECTIVES AVAILABLE 11TH & 12TH GRADE YEAR	
	AP Human Geography 📖		Advanced Research Seminar AP Comparative Government & Politics 📖 AP Economics 📖 AP European History AP U.S. Government & Politics 📖 AP Human Geography 📖 AP U.S. History 📖 Honors Civil War 📖 Honors Economics 📖 Honors Educational Psychology 📖 Honors Media Literacy 📖 Honors Philosophy Honors Psychology 📖 Honor Sociology 📖 Psychology Sociology Taking Informed Action	

CORE

UNITED STATES STUDIES II

A204 Grade Level 9

1 Social Studies Credit

This is a required course. Modern U.S. History course examines the history of the United States from the Industrial Revolution through the present time. This course includes a historical review of political, military, scientific, and social developments.

HONORS UNITED STATES STUDIES II

A204H Grade Level 9

1 Social Studies Credit

This is a required course. Modern U.S. History course examines the history of the United States from the Industrial Revolution through the present time. This course includes a historical review of political, military, scientific, and social developments. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

LOCAL, STATE, AND NATIONAL GOVERNMENT

A206 Grade Level 10

1 Social Studies Credit

This is a required course. The Government course provides an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. This course examines the structure and function of state and local governments and may covers certain economic and legal topics.

Prerequisite: U.S. Studies II

HONORS LOCAL, STATE, AND NATIONAL GOVERNMENT

A206H Grade Level 10

1 Social Studies Credit

This is a required course. The Government course provides an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. This course examines the structure and function of state and local governments and may covers certain economic and legal topics. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

Prerequisite: U.S. Studies II

WORLD HISTORY

A208 Grade Level 11, 12

1 Social Studies Credit

This is a required course. The World History course provides an overview of the history of human society in the past few centuries—from the Renaissance period to the contemporary period—exploring political, economic, social, religious, military, scientific, and cultural developments.

Prerequisite: Local, State, and National Government

HONORS WORLD HISTORY

A208H Grade Level 11, 12

1 Social Studies Credit

This is a required course. The World History course provides an overview of the history of human society in the past few centuries—from the Renaissance period to the contemporary period—exploring political, economic, social, religious, military, scientific, and cultural developments. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

Prerequisite: Local, State, and National Government

ELECTIVES

ADVANCED RESEARCH SEMINAR

A299 Grade Level 11, 12

1 Accelerated Credit

Social Sciences and History - Independent Study courses, are conducted with instructors as mentors, enabling students to explore topics of interest within one of the fields of social studies. This course provides students with an opportunity to expand their expertise in a particular specialization, to explore a topic of special interest, or to develop more advanced skills.

HONORS ECONOMICS (Dual Credit)

A230H Grade Level 11, 12

1 Accelerated Credit

The economics course provides students with an overview of economics with primary emphasis on the principles of microeconomics and the U.S. economic system. This course also covers topics such as principles of macroeconomics, international economics, and comparative economics. Economic principles may be presented in formal theoretical contexts, applied contexts, or both. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

HONORS MEDIA LITERACY (Dual Credit)

A193HSM Grade Level 11, 12

1 Accelerated Credit

This course aligns with HCC's POL103 Mass Media and Democracy. Media Literacy courses provide a history of the media, including advertising and persuasive techniques, and the study of misinformation through the use of current events. Students learn how to recognize credible information in order to make informed, empowered choices when interacting with social media. Topics may include debates surrounding various forms of social media, the importance of the First Amendment in American democracy, identifying facts from fiction, understanding the standards of quality journalism, and gaining a sense of responsibility for the information they share. This course possibly aligns with HCC's POL103 Mass Media and Democracy.

HONORS PHILOSOPHY

A292H Grade Level 11, 12

1 Elective Credit

The philosophy course introduces students to the discipline of philosophy as a way to analyze the principles underlying conduct, thought, knowledge, and the nature of the universe. Course content includes examination of the major philosophers and their writings. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

PSYCHOLOGY

A215SM Grade Level 11, 12

1 Elective Credit

The psychology course introduces students to the study of individual human behavior. Course content includes an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.

HONORS PSYCHOLOGY NEW (Dual Credit) (SGA)

A215HSM Grade Level 11, 12

1 Accelerated Credit

The psychology course introduces students to the study of individual human behavior. Course content includes an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

SOCIOLOGY

A217SM Grade Level 11, 12

1 Elective Credit

The sociology course introduces students to the study of human behavior in society. This course provides an overview of sociology, generally including such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

HONORS SOCIOLOGY (Dual Credit)

A217HSM Grade Level 11, 12

1 Accelerated Credit

The sociology course introduces students to the study of human behavior in society. This course provides an overview of sociology, generally including such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

TAKING INFORMED ACTION: A PROJECT-BASED EXPLORATION OF CIVIC AND SOCIAL ISSUES

A270SM Grades 11 or 12

1 Elective Credit

These courses examine a particular topic pertaining to U.S. government and political institutions rather than provide a general overview of the subject. They may concentrate on one of many topics related to governmental structure, function, and purposes, such as the Constitution, the Supreme Court, Congress, or the Office of the President. [In this case, the Taking Informed action course promotes historical awareness and civic competence and responsibility through interactive strategies, relevant content and collaborative role play. Students will consider multiple accounts of currents and historical events and issues in order to understand politics, economics, and history. Student will be involved in research, writing and public speaking throughout the course. Students will also identify local community or schools concerns and propose possible changes to current public policy. Students will investigate our changing world by examining contemporary issues and then deciding for themselves that various roles of global citizens. This course will enable students to participate in We the People, National History Day, Entrepreneur Competitions, Project Citizen, Choices, Mock Trial, and/or others.

HONORS U. S. CIVIL WAR (Dual Credit)

A238HSM Grade Level 11, 12

1 Accelerated Credit

U.S. Wars and Military Conflicts courses focus on the study of one or more wars and major military conflicts in which the United States had a significant role. In this case, the topic is the U.S. Civil War. This course concentrates on one of many topics related to The Civil War, including the causes; social, political, and economic effects. Instruction in honors classes is presented at a higher level of academic rigor than grade-level expectations. Students will be expected to complete challenging assignments.

Prerequisite: AP US History

ADVANCED PLACEMENT (AP)

ADVANCED PLACEMENT COMPARATIVE GOVERNMENT AND POLITICS (Dual Credit)

A277AP Grade Level 10, 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level Comparative Government and Politics courses, these courses offer students an understanding of the world's diverse political structures and practices. The courses encompass the study of both specific countries and general concepts used to interpret the key political relationships found in virtually all national policies. Course content generally includes sovereignty, authority, and power; political institutions; the relationships among citizens, society, and the state; political and economic change; and public policy. Students who take an AP course are expected to take the AP exam offered for that course in early May.

ADVANCED PLACEMENT U.S. GOVERNMENT AND POLITICS (Dual Credit)

A2088AP Grade Level 10, 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level U.S. Government and Politics courses, these courses provide students with an analytical perspective on government and politics in the United States, involving both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. The courses generally cover the constitutional underpinnings of the U.S. government, political beliefs and behaviors, political parties and interest groups, the institutions and policy process of national government, and civil rights and liberties. Students who take an AP course are expected to take the AP exam offered for that course in early May. Students will be expected to engage in historical research projects, such as the We the People competition.

Prerequisite: U.S. Studies II, completion of or enrolled in Local, State, and National Government, or by department/administration recommendation.

ADVANCED PLACEMENT WORLD HISTORY (Dual Credit)

A276AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level World History courses, AP World History courses examine world history from 1200 CE to the present with the aim of helping students develop a greater understanding of the evolution of global processes and contracts and how different human societies have interacted. These courses highlight the nature of changes in an international context and explore their causes and continuity. Students who take an AP course are expected to take the AP exam offered for that course in early May. Students will be expected to engage in historical research projects, such as National History Day.

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

Following the College Board's suggested curriculum designed to parallel college-level European History courses, AP European History courses examine European civilization from the High Renaissance period to the recent past and also expose students to the factual narrative. In addition, these courses help students develop an understanding of some of the principal themes in modern European history and the abilities to analyze historical evidence and to express that understanding and analysis in writing. Students who take an AP course are expected to take the AP exam offered for that course in early May. Students will be expected to engage in historical research projects, such as National History Day.

Prerequisite: World History

ADVANCED PLACEMENT PSYCHOLOGY

A284AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel a college-level psychology course, AP Psychology courses introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals, expose students to each major subfield within psychology, and enable students to examine the methods that psychologists use in their science and practice. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Local, State, and National Government

ADVANCED PLACEMENT ECONOMICS (Dual Credit)

A294AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level microeconomics and macroeconomics, AP Economics courses provide students with a thorough understanding of the principles of economics that apply to the functions of individual decision makers (both consumers and producers) and the economic systems as a whole. The course places emphasis on the nature and functions of product markets, while also including a study of factor markets and the role of government in the economy. There is also emphasis on the study of national income, price determination, and developing students' familiarity with economic performance measures, economic growth, and international economics. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Government

ADVANCED PLACEMENT UNITED STATES HISTORY (Dual Credit)

A275AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level U.S. History courses, AP U.S. History courses provide students with the analytical skills and factual knowledge necessary to address critically problems and materials in U.S. history. Students learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. The course examines the discovery and settlement of the New World through the recent past. Students who take an AP course are expected to take the AP exam offered for that course in early May. Students will be expected to engage in historical research projects, such as National History Day.

ADVANCED PLACEMENT HUMAN GEOGRAPHY (Dual Credit)

A2293AP Grade Level 10, 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level Human Geography courses, AP Human Geography introduces students to the systematic study of patterns and processes that have shaped the ways in which humans understand, use, and alter the earth's surface. Students use spatial concepts and landscape analysis to examine human social organization and its environmental consequences and also learn about the methods and tools geographers use in their science and practice. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: U.S. Studies II**INTERNATIONAL BACCALAUREATE (IB)****IB PSYCHOLOGY (SL)**

A284IB Grade Level 11, 12

1 IB Credit

IB Psychology courses prepare students to take the International Baccalaureate Psychology exams at either the standard or higher level. Course content includes biological, cognitive, and socio-cultural influences on human behavior, as well as experimental research methodology. Course content may also include the study of abnormal, developmental, health or sport psychology, the psychology of human relationships, and qualitative research in psychology.

Prerequisite: Honors Local, State, and National Government or AP Government and Politics and IB candidate of the North Hagerstown High School IB program**IB WORLD HISTORY (PART 1) (HL)**

A290IB Grade Level 11

1 IB Credit

IB History courses prepare students to take the International Baccalaureate History exams at either the standard or higher level. In these courses, students study historical developments at national, regional, and international levels; critically reflect on their relationship to the present; and explore the nature of historical documentation and the methods used by historians. IB History courses may survey the history of Europe and the Islamic world or focus on 20th-century topics in an international context and may enable students to undertake individual study on a subject of interest in greater detail and depth.

Prerequisite: Honors Local, State, and National Government or AP Government and Politics and Candidate for IB Diploma at North Hagerstown High School**IB WORLD HISTORY (PART 2) (HL) (Dual Credit)**

A2291IB Grade Level 12

1 IB Credit

IB History courses prepare students to take the International Baccalaureate History exams at either the standard or higher level. In these courses, students study historical developments at national, regional, and international levels; critically reflect on their relationship to the present; and explore the nature of historical documentation and the methods used by historians. IB History courses may survey the history of Europe and the Islamic world or focus on 20th-century topics in an international context and may enable students to undertake individual study on a subject of interest in greater detail and depth.

Prerequisite: IB World History (Part 1); Counts toward the required World History course and Candidate for IB Diploma at North Hagerstown High School**IB PHILOSOPHY SL**

A292IB Grade Level 11, 12

1 IB Credit

IB Philosophy courses prepare students to take the International Baccalaureate Philosophy exams at either the standard or higher level. These courses challenge students to reflect upon and question the bases of knowledge and experience, to develop critical and systematic thinking, and to carefully analyze and formulate rational arguments. Students closely examine conceptual themes and philosophical texts, and also undertake philosophical analysis of a non-philosophical stimulus, such as a painting or poem.

Prerequisite: Honors Local, State, and National Government or AP Government and Politics and IB candidate of the North Hagerstown High School IB program

IB PHILOSOPHY HL

A293IB Grade Level 12

1 IB Credit

IB Philosophy courses prepare students to take the International Baccalaureate Philosophy exams at either the standard or higher level. These courses challenge students to reflect upon and question the bases of knowledge and experience, to develop critical and systematic thinking, and to carefully analyze and formulate rational arguments. Students closely examine conceptual themes and philosophical texts, and also undertake philosophical analysis of a non-philosophical stimulus, such as a painting or poem.

Prerequisite: IB Philosophy SL and IB candidate of the North Hagerstown High School IB program

IB CORE

A297IB Grade Level 12

1 IB Credit

Obligatory for every International Baccalaureate Diploma degree candidate, IB Theory of Knowledge courses aim to stimulate critical self-reflection of students' knowledge and experiences. Course content generates questions regarding the bases of knowledge and their verification in the disciplines of mathematics, natural sciences, human sciences, the arts, history, ethics, religious knowledge systems, and indigenous knowledge systems, with an awareness of moral, political, and aesthetic judgments and biases. Students learn to appreciate the strengths and limitations of various kinds of knowledge; to relate studied subjects to one another, general knowledge, and living experiences; to formulate rational arguments; and to evaluate the role of language in knowledge and as a way to convey knowledge.

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

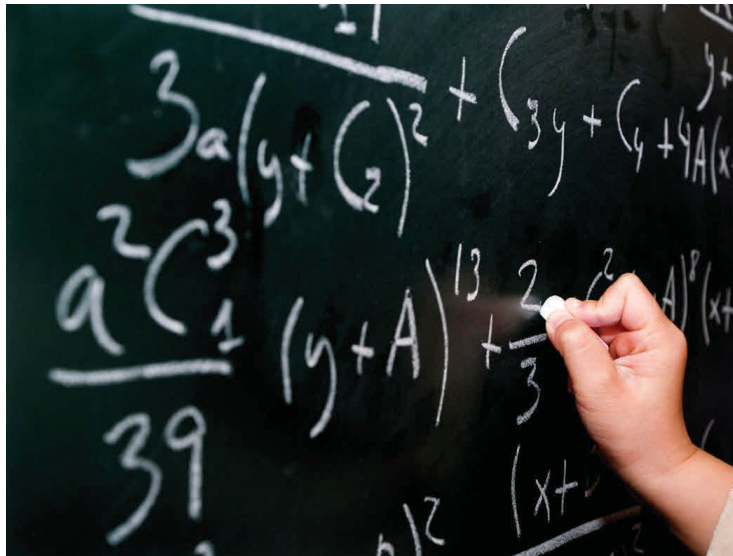
INTRODUCTION TO IBDP CORE

A052IB Grade Level 11

1 Credit (Pass/Fail)

Obligatory for every International Baccalaureate Diploma degree candidate, IB Theory of Knowledge courses aim to stimulate critical self-reflection of students' knowledge and experiences. Course content generates questions regarding the bases of knowledge and their verification in the disciplines of mathematics, natural sciences, human sciences, the arts, history, ethics, religious knowledge systems, and indigenous knowledge systems, with an awareness of moral, political, and aesthetic judgments and biases. Students learn to appreciate the strengths and limitations of various kinds of knowledge; to relate studied subjects to one another, general knowledge, and living experiences; to formulate rational arguments; and to evaluate the role of language in knowledge and as a way to convey knowledge.
























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. The final mathematics course must be taken during the regular school year of a student's senior year. **All students must pass all applicable Maryland assessments.**

MATH PATHWAYS

4 CREDITS REQUIRED AND 4 YEARS OF PARTICIPATION REQUIRED						
MUST CHOOSE 1 PATHWAY (REQUIRED TO CHOOSE 1 CLASS EACH YEAR)		9TH GRADE	10TH GRADE	11TH GRADE	12TH GRADE	 COMPLETER
	PATHWAY 1	Algebra 1	Geometry	Algebra 2	Statistics  Precalculus I (College Algebra)  Quantitative Reasoning 	Yes
				Statistics  Quantitative Reasoning  Financial Literacy	Statistics  Quantitative Reasoning  Financial Literacy	No
	PATHWAY 2	Honors Algebra 1	Honors Geometry	Honors Algebra 2	AP Precalculus  AP Statistics Statistics  Precalculus I (College Algebra)  Quantitative Reasoning 	Yes
					Statistics  Quantitative Reasoning 	Statistics  Quantitative Reasoning 
	PATHWAY 3	Honors Geometry	Honors Algebra 2	AP Precalculus 	AP Calculus AB AP Calculus AB/BC AP Statistics	Yes
				AP Statistics Precalculus I (College Algebra)  Statistics  Quantitative Reasoning 	AP Statistics Precalculus I (College Algebra)  Quantitative Reasoning 	Yes
	PATHWAY 4	Honors Geometry Honors Algebra 2	AP Precalculus 	AP Calculus AB/BC Calculus I <small>@HCC ONLY</small>	AP Statistics Calculus II <small>@HCC ONLY</small>	Yes

Dual Enrollment

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, deepening and extending students' understanding of linear relationships and comparing linear functions to exponential and quadratic functions. In addition, throughout the course, students will engage in: evaluating rational algebraic expressions; solving and graphing one variable equations and inequalities; performing operations on and factoring polynomial expressions; and solving quadratic equations. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Students will take the Algebra I MCAP Assessment during this course.

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, deepening and extending students' understanding of linear relationships and comparing linear functions to exponential and quadratic functions. In addition, throughout the course, students will engage in: evaluating rational algebraic expressions; solving and graphing one variable equations and inequalities; performing operations on and factoring polynomial expressions; and solving quadratic equations. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Honors Algebra I includes additional standards and is a rigorous course, preparing students to demonstrate advanced proficiency in preparation for college-level mathematics coursework. 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 this course is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations and justifications of geometric relationships, moving towards formal mathematical arguments or proof. Throughout the course, students engage in: parallelism, perpendicularity, transformations, congruence, similarity, trigonometry, circle relationships, and modeling with surface area and volume. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Students will take the Geometry MCAP Assessment during this course.

Prerequisite: Earned an Algebra I credit or concurrent enrollment in Algebra I

HONORS GEOMETRY

A322H Grade Level 9, 10

1 Geometry Mathematics Credit

The fundamental purpose of this course is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations and justifications of geometric relationships, moving towards formal mathematical arguments or proof. Throughout the course, students engage in: parallelism, perpendicularity, transformations, congruence, similarity, trigonometry, circle relationships, and modeling with surface area and volume. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Honors Geometry includes additional standards and is a rigorous course, preparing students to demonstrate advanced proficiency in preparation for college-level mathematics coursework. Students will take the Geometry MCAP Assessment during this course.

Prerequisite: Earned an Algebra I credit

ALGEBRA II

A332 Grade Level 11, 12

1 Algebra II Mathematics Credit

Algebra II builds on students' work with linear, exponential, and quadratic functions, to extend their repertoire of functions to include polynomial, rational, radical, and trigonometric. Included in the study of these functions, students will also perform operations with rational and irrational expressions, factor rational expressions, solve rational and radical equations, and perform operations with rational and irrational exponents. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Students will take the Algebra II MCAP during this course.

Prerequisite: Earned an Algebra I credit and Geometry credit

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 builds on students' work with linear, exponential, and quadratic functions, to extend their repertoire of functions to include polynomial, rational, radical, and trigonometric. Included in the study of these functions, students will also perform operations with rational and irrational expressions, factor rational expressions, solve rational and radical equations, and perform operations with rational and irrational exponents. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Honors Algebra II is more rigorous than Algebra II because additional standards are integrated into the course and other standards are taught to a deeper understanding. Students will take the Algebra II MCAP during this course.

Prerequisite: Earned an Algebra I credit and a Geometry credit

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 extending exponential and quadratic functions and equations. Also included is making connections to polynomial functions of higher-degree and radical functions. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Students may take the Algebra II MCAP during this course.

Prerequisite: Earned an Algebra I credit and a Geometry credit

ALGEBRA IIB

A322BC Grade Level 12

1 Algebra II Mathematics Credit

Algebra IIB is paired with Algebra IIA. The two courses comprise all of the standards for Algebra II. Algebra IIB includes extending knowledge of functions to logarithmic, rational, and trigonometric functions. Students will gain skills during this course to be able to demonstrate their understanding of mathematics by modeling and solving real-world problems, making sense of quantities and their relationships, and reasoning mathematically. Students will take the Algebra II MCAP during this course.

Prerequisite: Earned an Algebra I credit and a Geometry credit

FINANCIAL LITERACY

A839/A839SM 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. Financial Literacy does not meet the requirements for a USMD Completer.

Prerequisite: Earned an Algebra I credit and a Geometry credit

STATISTICS (Dual Credit)

A190SM Grade Level 11, 12

1 Accelerated Credit

This is a dual credit, college-level mathematics course consisting of the study of statistics for analysis and decision making. The areas of data (collection, representation, and exploration), probability (counting, basic, combined, and conditional events) probability distributions (Binomial, Poisson, Normal, Student's t, and Chi-Square), sampling distributions (central limit theorem, mean, and proportion), confidence interval estimation (mean, proportion, and standard deviation), and hypothesis testing (one and two sample mean and proportion, dependent means, and Goodness-of-Fit) are covered through the consideration of real world data sets and applications from business, education, social and natural sciences contexts.

Prerequisite: Earned a credit in Algebra 1 and Geometry

PRECALCULUS I (COLLEGE ALGEBRA) (Dual Credit)

A346/A346SM Grade Level 11, 12

1 Accelerated Credit

This is a dual credit, college-level mathematics course consisting of the study of algebraic functions, including linear, quadratic, polynomial, root, and rational functions, as well as their applications. Problems will be solved through analytical, numerical and graphical approaches with an emphasis on application problems. Additional topics include complex numbers, inverse functions, and operations with functions, compositions of functions, solving systems of equations, inequalities, and circles.

Prerequisite: Earned an Algebra II credit

QUANTITATIVE REASONING (Dual Credit)

A3314SM Grade Level 11, 12

1 Accelerated Credit

This is a dual credit, college-level mathematics course designed for students who do not expect to need any additional mathematics coursework to achieve their education or career goals. Emphasis is placed on quantitative methods and the associated reasoning skills essential for efficient and effective personal and professional decision making. The course will be covered in 5 modules: Logical Thinking, Exponential and Logarithmic Functions, Personal Finance, Probabilistic Reasoning, and Statistical Thinking.

Prerequisite: Earned a credit in Algebra 1 and Geometry

ADVANCED PLACEMENT PRECALCULUS (Dual Credit)

A191AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college level learning, AP Precalculus prepares students for other college-level mathematics and science courses. Students study each function type through their graphical, numerical, verbal, and analytical representations and their applications in a variety of contexts. These functions include: polynomial, rational, exponential, logarithmic, trigonometric, polar, and functions involving parameters, vectors, and matrices. Furthermore, students apply their understanding of functions by constructing and validating appropriate function models for scenarios, sets of conditions, and data sets, thereby gaining a deeper understanding of the nature and behavior of each function type. Students who take an AP course are expected to take the AP exam offered for that course in May. Students who take this class will be able to earn a dual credit for HCC's MAT161 Precalc 2.

Prerequisite: Earned an Honors Algebra II credit or teacher recommendation

ADVANCED PLACEMENT STATISTICS

A336AP Grade Level 11, 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level statistics courses, AP Statistics courses introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Technology is used extensively throughout the course as students are actively engaged in analyzing data from a wide variety of sources. Students will have assigned reading and/or other course-related activities prior to the beginning of this course. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Earned an Algebra II or Honors Algebra II credit

ADVANCED PLACEMENT CALCULUS AB

A341AP Grade Level 12

1 AP Credit

Following the College Board's suggested curriculum designed to parallel college-level calculus courses, AP Calculus AB provides students with an understanding of the concepts of calculus and experience with its methods and applications. This course introduces calculus and include the following topics: functions, graphs, limits, and continuity; differential calculus (including definition, application, and computation of the derivative; derivative at a point; derivative as a function; and second derivatives); and integral calculus (including definite integrals and antidifferentiation). Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Earned an AP PreCalculus/Trigonometry credit

ADVANCED PLACEMENT CALCULUS AB & BC

A339AP Grade Level 12

2 AP Credits

Following the College Board's suggested curriculum designed to parallel college-level calculus courses, AP Calculus AB/BC provides students with an understanding of the concepts of calculus and experience with its methods and applications. This course covers all of the Calculus topics in AP Calculus AB as well as the following topics: Parametric, polar, and vector functions; applications of integrals and polynomial approximations and series, including series of Constants and Taylor series. Students who take an AP course are expected to take the AP exam offered for that course in early May. Due to the additional content this course will take two year long class periods in a student's schedule.

Prerequisite: Earned an AP PreCalculus credit

IB MATHEMATICS: APPLICATIONS AND INTERPRETATION SL

A337IB Grade Level 11, 12

1 IB Credit

The IB Mathematics: Application and Interpretation (SL) course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. The course makes extensive use of technology to allow students to explore and construct mathematical models. IB Mathematics: Applications and Interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures. The internal assessment exploration will require students to demonstrate mathematical communication and the use of mathematics including relevance. Students must complete all assessment requirements to receive IBO recognition for completing this course.

Prerequisite: Earned an Honors AP PreCalculus credit**IB MATHEMATICS: ANALYSIS AND APPROACHES SL**

A340IB Grade Level 11, 12

1 IB Credit

The IB Mathematics: Analysis and Approaches (SL) course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, IB Mathematics: Analysis and Approaches (SL) has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. IB Mathematics: Analysis and Approaches (SL) should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. The internal assessment exploration will require students to demonstrate mathematical communication and the use of mathematics including relevance. Students must complete all assessment requirements to receive IBO recognition for completing this course.

Prerequisite: AP Calculus or IB Mathematics: Application and Interpretation SL**IB MATHEMATICS: ANALYSIS AND APPROACHES HL (PART 1)**

A343IB Grade Level 11, 12

1 IB Credit

The IB Mathematics: Analysis and Approaches (Part 1) (HL) course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series including proof by induction. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, IB Mathematics: Analysis and Approaches (Part 1) (HL) has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. IB Mathematics: Analysis and Approaches (Part 1) (HL) students should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. The internal assessment exploration will require students to demonstrate mathematical communication and the use of mathematics including relevance, sophistication, with clarity of logic and language.

Prerequisite: AP Calculus**IB MATHEMATICS: ANALYSIS AND APPROACHES HL (PART 2)**

A344IB Grade Level 11, 12

1 IB Credit

The IB Mathematics: Analysis and Approaches (Part 2) (HL) course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series including proof by induction at HL. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, IB Mathematics: Analysis and Approaches (Part 2) (HL) has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. IB Mathematics: Analysis and Approaches (Part 2) (HL) students should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. IB Mathematics: Analysis and Approaches (Part 2) (HL) students will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems. The internal assessment exploration will require students to demonstrate mathematical communication and the use of mathematics including relevance, sophistication, with clarity of logic and language. Students must complete all assessment requirements to receive IBO recognition for completing this course.

Prerequisite: IB Analysis and Approaches HL (Part I)



Science Course Descriptions

To develop scientific literacy, students are required to earn a minimum of three (3) science credits, one credit is required in Biology. **The Life Science MISA (state assessment) will be taken during the Biology course and account for 20% of the student's overall grade for the course.** All science courses attend to a balance of content, cross-cutting concepts, and science and engineering practices. The content focus of each science course includes one or more of the following: life science, physical science, and/or earth and space science.

SCIENCE PATHWAYS

3 CREDITS REQUIRED

	9TH GRADE	10TH GRADE	11TH GRADE	12TH GRADE
	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	MUST CHOOSE 1 CLASS	
PATHWAY 1	Integrated Physics and Chemistry	Biology Honors Biology	AP Environmental Science Earth & Space Science Honors Chemistry Honors Earth & Space Science Honors Physics Marine Science & Oceanography	
PATHWAY 2	Honors Biology	Honors Chemistry	Adv. Anatomy & Physiology AP Biology AP Chemistry AP Physics Forensics Science Honors Physics Marine Science & Oceanography	see electives below
ELECTIVES		AVAILABLE 10TH GRADE YEAR AP Environmental Science Honors Earth & Space Science Marine Science & Oceanography	AVAILABLE 11TH & 12TH GRADE YEAR Advanced Anatomy & Physiology AP Biology AP Chemistry AP Environmental Science AP Physics Earth & Space Science Forensics Science Honors Chemistry Honors Earth & Space Science Honors Physics Marine Science & Oceanography	

Dual Enrollment

Core Science Credits

INTEGRATED PHYSICS AND CHEMISTRY

A420 Grade Level 9

1 Science Credit

Integrated Physics and Chemistry is a laboratory-based science course in which students will focus on the physical science 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.

BIOLOGY

A409 Grade Level 10

1 Biology Credit

Biology is a laboratory-based science course that focuses on fundamental concepts of life science, including cells, organisms, life processes, and the interactions between living things and their environment. This course provides students with information necessary to be educated citizens in a scientific world. Students will take the Life Science MISA during this course.

HONORS BIOLOGY

A409H Grade Level 9, 10

1 Biology Credit

Honors Biology is a rigorous laboratory-based science course that focuses on detailed life science 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. Students will take the Life Science MISA during this course. 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.

EARTH AND SPACE SCIENCE

A413 Grade Level 11, 12

1 Science Credit

Earth and Space Science is a laboratory-based science course that focuses on the fundamental earth space concepts 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 investigated. Activities include mapping, laboratory experiences, and field experiences.

Prerequisite: Biology Credit

HONORS EARTH AND SPACE SCIENCE

A413H Grade Level 11, 12

1 Science Credit

Honors Earth and Space Science is a rigorous laboratory-based course that focuses on 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 investigated. This course places emphasis on earth science phenomena using mapping, classroom investigations, laboratory experiences and field experiences. 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: Biology Credit

HONORS CHEMISTRY

A411H Grade Level 10, 11, 12

1 Science Credit

Honors Chemistry is a rigorous physical science and laboratory-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. 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: Biology Credit and Algebra I

HONORS PHYSICS

A419H Grade Level 11, 12

1 Science Credit

Honors Physics is a rigorous physical science and laboratory-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, and circuits; optics: electromagnetic radiation and wave nature; and atomic physics: atomic structure and nuclear forces. 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: Biology Credit, Algebra I and Geometry with teacher recommendation

Accelerated Science Credits

FORENSIC SCIENCE (Dual Credit)

A415/A415SM Grade Level 11, 12

1 Science and Accelerated Credit

Forensic Science is a rigorous laboratory-based course that provides an introduction to the scientific study of crime solving. Topics included are crime scene investigation, fingerprint analysis, DNA fingerprinting, drug identification, ballistics studies and crime scene documentation.

Prerequisite: 1 Biology Credit and 1 additional science credit

MARINE SCIENCE/OCEANOGRAPHY (Dual Credit)

A417/A417SM Grade Level 11, 12

1 Science and Accelerated Credit

Marine Science and Oceanography is a rigorous laboratory-based course with a focus on earth science concepts. Oceans are more than Earth's water reservoir; they exhibit major influences on the weather, climate, and life found on the planet. Explore the biological, chemical, geological, and physical factors that control land and marine systems including energy transformation, climate and weather, marine life, and the global impact of human society on the biosphere.

Prerequisite: 1 Biology and 1 additional science credit

ADVANCED ANATOMY AND PHYSIOLOGY for Allied Health (Dual Credit)

A427 Grade Level 11, 12

1 Science and Accelerated Credit

This course is designed to provide an understanding of the structure and function of human anatomy, including the nervous, endocrine, integumentary, muscular, skeletal, digestive, urinary, reproductive, respiratory, circulatory, and immune/lymphatic systems. The laboratory work involves a complete study and dissection of typical mammal specimens for comparison to the human body. Dissection is a major component of this course.

Prerequisite: Honors Biology, Honors Chemistry, and completion or concurrent enrollment in Algebra II

Advanced Placement Science Credits

ADVANCED PLACEMENT BIOLOGY

A2129 Grade Level 11, 12

2 AP Credits

Adhering to the curricula recommended by the College Board and designed to parallel college-level introductory biology courses, the AP Biology course emphasizes four general concepts: evolution; cellular processes (energy and communication); genetics and information transfer; and interactions of biological systems. For each concept, the course emphasizes the development of scientific inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. AP Biology includes college-level laboratory investigations. Students who take an AP course are expected to take the AP exam offered for that course in early May. Due to the additional content and lab components this course will take two year-long class periods in a student's schedule.

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

ADVANCED PLACEMENT CHEMISTRY

A2130 Grade Level 11, 12

2 AP Credits

Concepts covered in AP Chemistry include the structure of matter; bonding of intermolecular forces; chemical reactions; kinetics; thermodynamics; and chemical equilibrium. For each concept, the course emphasizes the development of scientific inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. AP Chemistry includes college-level laboratory investigations. Students who take an AP course are expected to take the AP exam offered for that course in early May. Due to the additional content and lab components this course will take two year-long class periods in a student's schedule.

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

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (Dual Credit)

A194AP Grade Level 11, 12

1 Science and AP Credit

The AP Environmental Science course is designed by the College Board to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems (both natural and human made), evaluate the relative risks associated with the problems, and examine alternative solutions for resolving and/or preventing them. Topics covered include science as a process, ecological processes and energy conversions, earth as an interconnected system, the impact of humans on natural systems, cultural and societal contexts of environmental problems, and the development of practices that will ensure sustainable systems. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisites: Biology credit, completion or concurrent enrollment in Honors Chemistry (substitute IPC with teacher recommendation), and completion or concurrent enrollment in Algebra II

ADVANCED PLACEMENT PHYSICS 1

A439AP Grade Level 11, 12

1 AP Credit

Designed by the College Board to parallel first-semester college-level courses in algebra-based physics, AP Physics 1 focuses on Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory circuits. This course also includes college-level laboratory investigations. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Biology credit, completion of Algebra II and/or Honors Physics with teacher recommendation

ADVANCED PLACEMENT PHYSICS 2

A440AP Grade Level 11, 12

1 AP Credit

Designed by the College Board to parallel second-semester college-level courses in algebra-based physics, AP Physics 2 covers fluid statics and dynamics; thermodynamics with kinetic theory, PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. This course also includes college-level laboratory investigations. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Completion of Algebra II and Advanced Placement Physics I

International Baccalaureate Science Credits

IB BIOLOGY (PART 1) (HL, SL)

A421IB Grade Level 11, 12

1 IB Credit

IB Biology courses prepare students to take the International Baccalaureate Biology exams at either the standard or higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Biology promotes understanding of the facts, principles, and concepts underlying the biological field; critical analysis, evaluation, and generation of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of biology and scientific advances in biology upon both society and issues of ethical, philosophical, and political importance. 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 including the study of statistical analysis, cells, the chemistry of life, genetics, ecology and evolution, and human health. 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 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 Level or Standard Level exam as seniors. 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 courses prepare students to take the International Baccalaureate Physics exams at either the standard or higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Physics promotes understanding of the facts, patterns, and principles underlying the field of physics; critical analysis, prediction, and application of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of scientific advances in physics upon both society and issues of ethical, philosophical, and political importance. 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 juniors. 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 Level exam. The students in the course will be assessed with the standard IB assessment methods. Students take the IB Physics Standard 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 PHYSICS HIGHER LEVEL (HL)**

A431IB Grade Level 12

1 IB Credit

IB Physics courses prepare students to take the International Baccalaureate Physics exams at either the standard or higher level. In keeping with the general aim of IB Experimental Sciences courses, IB Physics promotes understanding of the facts, patterns, and principles underlying the field of physics; critical analysis, prediction, and application of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of scientific advances in physics upon both society and issues of ethical, philosophical, and political importance. IB Physics Higher Level is designed for students who wish to continue their studies of Physics. IB Physics Higher Level students must have earned an IB Physics Standard Level of a 4, 5, 6 or 7. This course deepens students' understanding of: Measurements and Uncertainties, Mechanics, Thermal Physics, Waves, Electricity and Magnetism, Circular Motion and Gravitation, Atomic, Nuclear and Particle Physics, Energy Production, Relativity, Engineering Physics, Imaging, and Astrophysics while requiring new investigation into Wave Phenomena, Fields, Electromagnetic Induction and Quantum and Nuclear Physics. The course follows IB protocol for internal and external assessments and students take the IB Physics Higher Level exam at the conclusion of the course. Students must complete all assessment requirements including participation in an IBO Group 4 project with students from other IB science courses within the school to receive IBO recognition for completing the course.

Prerequisite: IB Physics Part 1, 2 with a score of 4 or greater.**IB SPORTS, EXERCISE, AND HEALTH SCIENCE (SL)**

A713IB Grade Level 11, 12

1 IB Credit

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.

IB CHEMISTRY (PART 1) (SL)

A423IB/A423IBSM Grade Level 10, 11, 12

1 IB Credit

IB Chemistry courses prepare students to take the International Baccalaureate Chemistry exams at either the standard or higher level. 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. In keeping with the general aim of IB Experimental Sciences courses, IB Chemistry promotes understanding of the facts, patterns, and principles underlying the field of chemistry; critical analysis, evaluation, prediction, and generation of scientific information and hypotheses; improved ability to communicate scientific ideas; and an awareness of the impact of chemistry and scientific advances in chemistry upon both society and issues of ethical, philosophical, and political importance. Course content varies, but includes 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.

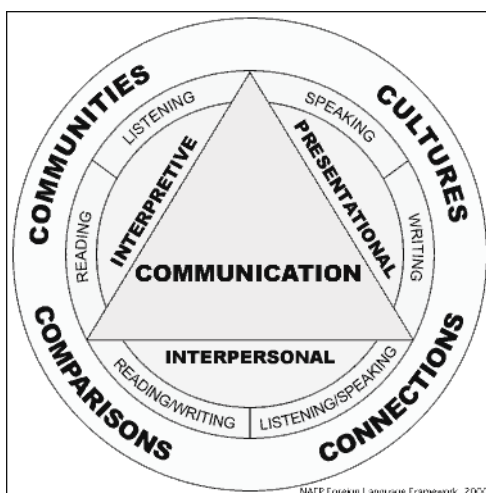
Prerequisite: IB Chemistry (Part 1)

IB ENVIRONMENTAL SYSTEMS AND SOCIETIES (SL) (Dual Credit)

A555IB Grade Level 11, 12

1 Science and 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 knowledge, methods, and techniques to understand the nature and functioning of natural systems, the relationships that affect environmental equilibrium, and human impact on the biosphere. 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.

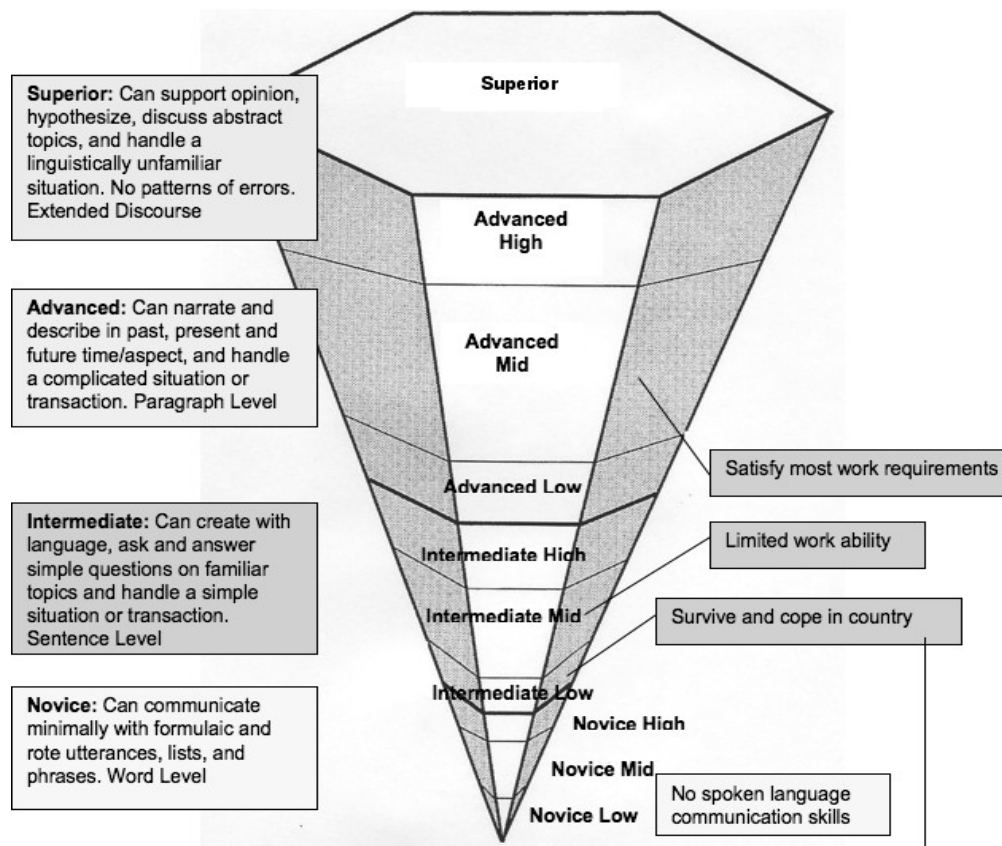


World Language Course Descriptions

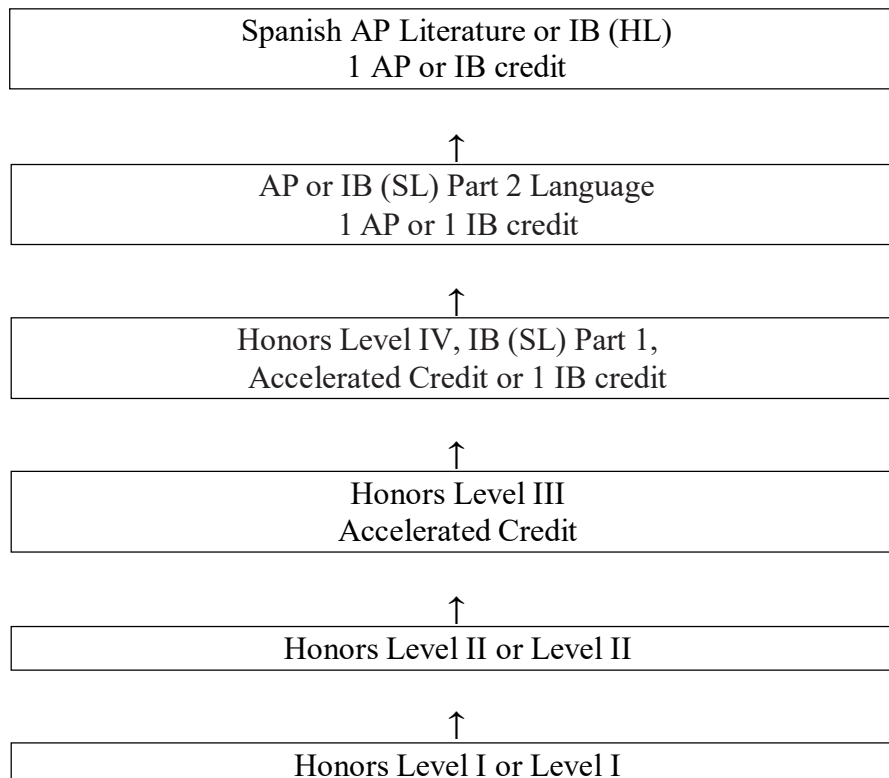
World language instruction enables students to communicate in a second language in a culturally appropriate manner by integrating communication skills with higher order thinking skills and creativity. World language instruction and assessment use a proficiency-based approach, which focuses on what students 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 Complete 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



WORLD LANGUAGES

Level I Grade Level 9, 10, 11, 12

1 World Language Credit

French I	A502
Honors French I	A502H
German I	A512
Honors German I	A512H
Latin I	A522
Honors Latin I	A522H
Spanish I	A532
Honors Spanish I	A532H
Honors Japanese I	A552H
Honors Italian I	A572H

Designed to introduce students to language and culture, level I world language courses prepare students to communicate authentically in the target language by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on a variety of topics. Level I world language courses introduce the relationships among the products, practices, and perspectives of the target cultures. Students will end the course at an ACTFL novice mid proficiency level.

Level II Grade Level 9, 10, 11, 12

1 World Language Credit

French II	A504
Honors French II	A504H
German II	A514
Honors German II	A514H
Latin II	A524
Honors Latin II	A524H
Spanish II	A534
Honors Spanish II	A534H
Honors Japanese II	A554H

Level II world language courses build upon skills developed in level I, preparing students to communicate authentically in the target language by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information on concrete topics. Level II world language courses introduce the relationships among the products, practices, and perspectives of the target cultures. Students will end the course at an ACTFL novice high proficiency level.

Prerequisite: Honors I or I

Level III Grade Level 9, 10, 11, 12

1 Accelerated World Language Credit

Honors French III	A506H
Honors German III	A516H
Honors Latin III	A526H
Honors Spanish III	A536H
Honors Japanese III	A556H

Level III world language courses prepare students to communicate authentically in the target language by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including connections to other subject areas. Level III courses expand students' knowledge of relationships among the products, practices, and perspectives of target language countries and cultures. Students will end the course at an ACTFL intermediate low proficiency level.

Prerequisite: Honors II or II

Level IV (Dual Credit) Grade Level 10, 11, 12

1 Accelerated World Language Credit

Honors French IV	A507
Honors German IV	A517
Honors Latin IV	A523
Honors Spanish IV	A537
Honors Japanese IV	A557

Level IV world language courses prepare students to communicate authentically in the target language by interpreting (reading, listening, viewing), exchanging (speaking and listening; reading and writing), and presenting (speaking, writing) information, concepts, and ideas on a variety of topics, including connections to other subject areas. Level IV courses promote students' understanding of the relationships among the products, practices, and perspectives of target language countries and cultures. Students will end the course at an ACTFL intermediate low/mid proficiency level.

Prerequisite: Honors III

ADVANCED PLACEMENT LANGUAGE AND CULTURE

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

Designed by the College Board to parallel third-year college-level courses in world language, AP Language and Culture courses build upon prior knowledge and develop students' ability to express ideas, exchange opinions, and present information in the target language both orally and in writing. These courses also help students understand and interpret the written and spoken target language. In addition, students explore the culture of the target language's historical and contemporary contexts. Students will end the course at an ACTFL intermediate high proficiency level. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Honors IV

ADVANCED PLACEMENT LATIN VERGIL

A530AP Grade Level 11, 12	1 AP Credit
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Designed to parallel advanced college-level courses in Latin studies, AP Latin courses build upon and increase knowledge of Latin, enabling students to read the language with comprehension, to accurately translate Latin into English, and to appreciate the stylistic literary techniques used by the authors. AP Latin courses also include study of the political, social, and cultural background of the literary works and their authors, as well as their influence on later literature. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Honors Latin IV

ADVANCED PLACEMENT SPANISH LITERATURE AND CULTURE

Advanced Placement Spanish Literature A540AP Grade Level 10, 11, 12	1 AP Credit
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Designed by the College Board to parallel college-level Introduction to Hispanic Literature courses, AP Spanish Literature and Culture courses cover representative works from the literatures of Spain and Spanish America, encompassing all genres. The courses build students' Spanish language proficiency, with special attention given to critical opinions and literary analyses in oral and written Spanish. Students are encouraged to relate the texts to their cultural contexts. Students will end the course at an ACTFL advanced low proficiency level. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: AP Spanish Language and Culture

AMERICAN SIGN LANGUAGE I (Dual Credit)

A1055SM Grades 11, 12	1 World Language Accelerated Credit
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Designed to introduce students to American Sign Language and culture, American Sign Language I prepares students to communicate authentically in American Sign Language by interpreting (reading/viewing), exchanging (signing and reading), and presenting (signing) information on a variety of topics. They introduce the relationship among the practices, perspectives, and cultures of deaf people and communities.

AMERICAN SIGN LANGUAGE II (Dual Credit)

A1056SM Grades 11, 12	1 World Language Accelerated Credit
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American Sign Language II courses build upon skills developed in American Sign Language I, preparing students to communicate authentically in American Sign Language by interpreting (reading/viewing), exchanging (signing and reading), and presenting (signing) information on concrete topics. American Sign Language II courses introduce the relationship among the practices, perspectives, and cultures of deaf people and communities.

Pre-requisite: ASL I

INTERNATIONAL BACCALAUREATE

INTERNATIONAL BACCALAUREATE LANGUAGE PART 1 STANDARD LEVEL (SL) (Dual Credit)

Grade Level 10, 11, 12

1 IB Credit

IB FRENCH (PART 1) (SL) A505/A505SM

GERMAN (PART 1) (SL) A518/A518SM

SPANISH (PART 1) (SL) A541/A541SM

IB Language B—World Language courses prepare students to take the International Baccalaureate Language B exams. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language).

Prerequisite: Honors III at NHHS

INTERNATIONAL BACCALAUREATE LANGUAGE PART 2 STANDARD LEVEL (SL)

Grade 11, 12

1 IB Credit

IB FRENCH (PART 2) (SL) A511IB

IB GERMAN (PART 2) (SL) A519IB

IB SPANISH (PART 2) (SL) A541IB

This concluding course prepares students to take the IB Language B—World Language courses prepare students to take the International Baccalaureate Language B exams. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language).

Prerequisite: IB SL (Part 1)

INTERNATIONAL BACCALAUREATE LANGUAGE HIGHER LEVEL (HL)

Grade 11, 12

1 IB Credit

IB FRENCH (HL) A522IB

IB GERMAN (HL) A520IB

IB SPANISH (HL) A560IB

This higher level course prepares students to take the International Baccalaureate Language B exams. These courses focus on improving students' accuracy and fluency in oral and written communication (usually in the students' "second" language). At HL, students are required to study two literary works originally written in the target language, and are expected to extend the range and complexity of the language they use and understand in order to communicate.

Prerequisite: IB SL (Part 2)

INDEPENDENT STUDY

HONORS LANGUAGE INDEPENDENT STUDY

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 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

A531H--Latin, Prerequisite Latin IV

A541H--Spanish, Prerequisite Honors Spanish IV



Fine Arts Course Descriptions

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

Accelerated Credit Option: ✧

In some Arts courses 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 students should speak with their teachers about the availability of this Accelerated Credit option.

ART

ART I

A602SM 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

A604SM Grade Level 10, 11, 12

1 Credit

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

ART 101- INTRODUCTION TO VISUAL ARTS (Dual Credit)

A1101SM Grade Level 11, 12

1 Credit

This introduction to the visual arts gives insight into the relationship of art and culture. While this course introduces major styles and artists, it is not strictly an art history course. The course seeks the answer to the question of how one perceives art. The role art has played in the past and how the past informs the ever-changing present is examined. Slides, films, and field trips enrich the experience. * Arts/Humanities Approved General Education Course for HCC. Counts as Elective Credit Only for WCPS

Prerequisite: Previous Fine Art Credit.

HONORS ART III

A606HSM Grade Level 11, 12

1 Credit

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

A608HSM Grade Level 11, 12

1 Credit

Honors Art IV provides a studio environment to students. 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

INTRODUCTION CERAMICS I

A609SM Grade Level 10, 11, 12

1 Credit

Ceramics is available to all upper class students. 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

ART 120 CERAMICS I(Dual Credit)

A6099SM Grade Level 11, 12

1 Credit

This course is a foundation course in ceramics designed to introduce students to basic techniques in functional and sculptural design, and issues within the medium. The course will familiarize students with basic forming (slab, coil and wheel thrown methods), surfaces, and firing of ceramics as well as covering some history of the medium and contemporary artists that affect the field today. General concepts in design composition such as image, scale, positive and negative space and content will be included. Counts as Elective Credit Only for WCPS

Prerequisite: Art I, Ceramics I**DIGITAL PHOTOGRAPHY I**

A 611SM Grade Level 10, 11, 12

1 Credit

Digital Photography is available to all upper class students. This course is designed to offer learning experiences in still photography, digital video, and various computer-based editing processes. Students develop skills using Adobe Photoshop tools and other internet based photo editing programs. Students will explore functional applications of photography (personal, vocational, educational), aesthetic (artistic) use of camera, critique technique/procedure of personal/other students' work, and basic history and theory of photography. A studio fee may be required.

Prerequisite: Art I**DIGITAL PHOTOGRAPHY II**

A613SM Grade Level 11, 12

1 Credit

Digital 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/lab and field experiences. A studio fee may be required.

Prerequisite: Digital Photography I**STUDIO PRACTICE ART**

A615SM 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**

A619HSM 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**AP 2-D ART AND DESIGN (Dual Credit)**

A620 Grade Level 11, 12

1 AP Credit

AP Drawing is an introductory college-level drawing course. Students refine and apply skills and ideas they develop throughout the course to produce drawings using a variety of media.

AP Drawing Portfolio Exam: This portfolio is designated for work that focuses on the use of mark-making, line, surface, space, light and shade, and composition. Students should consider marks that can be used to make drawings, the arrangement of marks, the materials and processes used to make marks, and relationships of marks and ideas.

Prerequisite: Art teacher recommendation and Art I and 2 additional art credits**AP 3-D ART AND DESIGN**

A621AP Grade Level 11, 12

1 AP Credit

AP 3D Art and Design is an introductory college-level three-dimensional design course. Students refine and apply skills and ideas they develop throughout the course to produce three-dimensional art and design.

AP 3-D Art and Design Portfolio Exam: This portfolio is designated for work that focuses on the use of three-dimensional (3-D) elements and principles of art and design, including point, line, shape, plane, layer, form, volume, mass, occupied/unoccupied space, texture, color, value, opacity, transparency, time, unity, variety, rhythm, movement, proportion, scale, balance, emphasis, contrast, repetition, connection, juxtaposition, and hierarchy. Students should consider how materials, processes, and ideas can be used to make work that involves space and form. Students can work with any materials, processes, and ideas. Figurative or nonfigurative sculpture, architectural models, metal work, ceramics, glasswork, installation.

Prerequisite: Art teacher recommendation and Art I and 2 additional art credits

HONORS DIGITAL PHOTOGRAPHY III

A627HSM Grade Level 11, 12

1 Credit

Honors Digital Photography III is a continuation of Digital Photography II with selected emphasis on aesthetic theories as applied through photography and the creative and dramatic use of design concepts. Skills developed in Digital Photography II are practiced and demonstrated through more complex problem solving and artistic interpretation. 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. A studio fee may be required.

Prerequisite: Digital Photography II

HONORS DIGITAL PHOTOGRAPHY IV

A629HSM Grade Level 11, 12

1 Credit

Honors Digital Photography IV takes the experiences of Digital 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/photo manipulation. Both individual field and studio situations are experienced and student-initiated. Problem solving projects are initiated through research. Students individually prescribe their own situation, resolutions, assessment criteria, and evaluate their successes. 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. A studio fee may be required.

Prerequisite: Art teacher recommendation and Honors Digital Photography III

AP ART HISTORY

A631AP Grade Level 11, 12

1 AP Credit

Explore the history of art across the globe from prehistory to the present. You'll analyze works of art through observation, discussion, reading, and research. Students who take an AP course are expected to take the AP exam offered for that course in early May.

Prerequisite: Previous fine art credit

AP DRAWING (Dual Credit)

A733AP Grade Level 11, 12

1 AP Credit

AP Drawing is an introductory college-level drawing course. Students refine and apply skills and ideas they develop throughout the course to produce drawings using a variety of media. Students who take an AP course are expected to take the AP exam offered for that course in early May.

AP Drawing Portfolio Exam: This portfolio is designated for work that focuses on the use of mark-making, line, surface, space, light and shade, and composition. Students should consider marks that can be used to make drawings, the arrangement of marks, the materials and processes used to make marks, and relationships of marks and ideas.

Prerequisite: Art teacher recommendation and Art I and 2 additional art credits

CONCEPTS OF FLORAL DESIGN

A1070SM Grade Level 9, 10, 11, 12

1 Credit

Concepts of Floral Design teaches students basic elements and principles of design while familiarizing them with the material and tools of floral design. Professionally designed floral arrangements or artwork incorporate the elements of floral design: line, form, space, texture, and color, and the principles of floral design: balance, proportion, rhythm, contrast, harmony, and unity. Proper use of the color wheel will be taught and used to select color schemes for construction of basic geometric arrangements, corsages, and boutonnieres. Students will learn to identify and care for flowers, while learning to select quality materials in design, construction, and marketing of floral products. Available at BHS, CSHS, WCTHS.

STUDIO PRACTICE PHOTOGRAPHY

A632SM Grade Level 11, 12

1 Credit

Studio Practice Photography may be taken in conjunction with Art II through Art IV and/or Digital Photography II through Digital Photography IV. As with Studio Practice Art, this course is designed for students to pursue special visual art interests unique to photographic artistic 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/Digital Photography students to take this course. Note: This course may be taken more than once. A studio fee may be required.

Prerequisite: Art teacher recommendation and Art I or Digital 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

A692SM 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

A693SM 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 Accelerated 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

DNC 101- DANCE APPRECIATION (Dual Credit)

A2294SM Grade Level 11, 12

1 Credit

This course is designed to be an overview of world and western dance including: a survey of differing dance techniques, an examination of individual histories and training methods, an introduction to relevant dancers and choreographers, a discussion of particular aspects of spirituality, and a study of artistic and aesthetic expression through dance. * Arts/Humanities Approved General Education Course for HCC. Counts as elective credit only for WCPS.

Prerequisite: Previous Fine Arts Credit

THEATRE

DRAMA I

A641SM 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

A642SM 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.

HONORS DRAMA III*

A643H Grade Level 10, 11, 12

1 Accelerated 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.

HONORS DRAMA IV*

A644H Grade Level 11, 12

1 Accelerated 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.

THR 114- HISTORY OF THE THEATRE (Dual Credit)

A2134SM Grade Level 11, 12

1 Credit

Students who complete this course will leave with foundational knowledge of the traditions and practices at the root of modern theatre and will be able to draw connections between theatrical traditions and their modern-day experiences. Woven through the course materials is a combination of both the context of the theatrical traditions and the technical language and practices of theater. Historical periods covered include: Ancient Greece, the European Middle Ages, Renaissance drama, 18th century theatre, and 20th century theatre. * Arts/Humanities Approved General Education Course for HCC. Counts as elective credit only for WCPS.

Prerequisite: Previous Fine Arts Credit

HONORS DRAMA V*

A645H Grade Level 12

1 Accelerated 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*

A679HSM Grade Level 9, 10, 11, 12

1 Accelerated 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

MUSIC APPRECIATION (Dual Credit)

A671SM Grade Level 9, 10, 11, 12

1 Credit

This course in the elements of music gives the average listener a better understanding and appreciation of the world's greatest music. The life and times of the great composers and the various forms of musical composition and expression are surveyed. This could be a possible dual credit.

CREATIVE MUSIC TECHNOLOGY

A674SM Grade Level 9, 10, 11, 12

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.

GUITAR LAB I

A662SM 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

A664SM 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

A666HSM 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

A668SM 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

A669SM 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

A670SM 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

A672SM 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, melodic 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 who take an AP course are expected to take the AP exam offered for that course in early May. **Prerequisite: Band/orchestra/choral director recommendation**

TWENTIETH CENTURY MUSIC

A677SM 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

A682SM 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

A684SM 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

A685HSM 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

A686SM 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

HONORS MUSIC STUDIO PRACTICE

A688HSM Grade Level 11, 12

1 Credit

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

MUS 180- THE HISTORY OF ROCK AND ROLL (Dual Credit)

A1180SM Grade Level 11, 12

1 Credit

This course provides a survey of the musical, social, and historical elements leading to the growth and development of the various styles of music that have culminated into the form commonly called "Rock n' Roll". Discussions of both musical characteristics and social/cultural relationships will be central to the progress of the class. By the end of the course the student should have an understanding of various rock n' roll styles, important trends and figures in its history, and a systematic process for thinking about and listening to the music. The course is enhanced by an extensive series of audio, video and multimedia resources as well as guest lecturers/performers. * Arts/Humanities Approved General Education Course for HCC. Counts as elective credit only for WCPS.

Prerequisite: Previous Fine Arts Credit

IB MUSIC (PART 1)

A691IB Grade Level 11, 12

1 IB Credit

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)

A692IB Grade Level 11, 12

1 IB Credit

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*

A657H Grade Level 9, 10, 11, 12

1 Accelerated Credit

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

A659 Grade Level 9, 10, 11, 12

1 Credit

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.

HONORS TREBLE ENSEMBLE*

A673H Grade Level 9, 10, 11, 12

1 Credit

Treble ensemble allows students to refine their vocal skills in the highly demanding small ensemble treble setting. Students sing a variety of music written for treble 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

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

HONORS SHOW CHOIR*

A687H Grade Level 9, 10, 11, 12

1 Accelerated 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 Accelerated 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 mastercomposers, 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 Accelerated 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 Accelerated 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 Accelerated 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**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 Accelerated Credit

Honors Symphonic Orchestra students develop and refine advanced technical skills that enables 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 Accelerated 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 and Physical Education Course Descriptions

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 AND FINANCIAL LITERACY

A2131 Grade Level 10, 11, 12

1 Health Credit

This year long course meets the MSDE graduation requirements for Health I and Health II. This course encourages students to develop skills, attitudes, and behaviors that will enable them to make decisions that promote healthy behaviors. Topics included are: Mental and Emotional Health; Substance Abuse Prevention; Family Life and Human Sexuality; Safety and Violence Prevention; Healthy Eating; and Disease Prevention and Control. Skills developed in relation to health enhancing behaviors include: analyzing influences, accessing valid and reliable information, interpersonal communication, decision-making, goal setting, self management, and advocacy.

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.

As part of the instructional health program, all high school Washington County Public School students are provided the opportunity to participate in lessons relating to family life and human development. The approved Health Education curriculum is based on the national and state health education standards and in accordance with Maryland Regulations (COMAR 13A.04.18).

The course content has been designed and approved to not only meet state graduation requirements, but also to provide information, decision making skills, and resources that will encourage communication between students and their families. The Family Life & Sexuality curriculum will include the following topics:

- | | |
|--|---|
| <ul style="list-style-type: none">• Abstinence<ul style="list-style-type: none">• Identify ways to practice abstinence• Resistance skills• Peer pressure• Relationships<ul style="list-style-type: none">• Identifies healthy vs. unhealthy relationships• Roles and responsibilities.• Sexually Explicit Media<ul style="list-style-type: none">• Sexting• Sexual Consent<ul style="list-style-type: none">• Define consent• Sexual Identity<ul style="list-style-type: none">• Sexual orientation• Gender identity and expressions• Sexual and Reproductive Anatomy<ul style="list-style-type: none">• Structure and function male and female reproductive system• Menstrual cycle | <ul style="list-style-type: none">• Decisions & Risks<ul style="list-style-type: none">• Identify sexual behaviors and risks• Communication strategies with trusted adults• Planning and Protection<ul style="list-style-type: none">• Transmission/contraction• Symptoms, treatments and prevention of STDs, including HIV• Community services and resources• Contraception & Disease Prevention<ul style="list-style-type: none">• Identify advantages and disadvantages of various methods of contraception• Pregnancy<ul style="list-style-type: none">• Signs of pregnancy• Stages of fetal development• Laws related to reproductive health |
|--|---|

Parents of high school students will receive information about the family life at the beginning of the school year. According to State of Maryland regulations, students may be excused from this unit of study upon written request from their parent/guardian.

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 evaluation 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.

Topics covered within Health Education courses may vary widely but typically include personal health (nutrition mental health and stress management drug/alcohol abuse prevention disease prevention and first aid) and consumer health issues. The courses may also include brief studies of environmental health personal development and/or community resources.

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

A702SM Grade Level 9

1 Physical Education Credit

Physical Education courses provide students with the knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

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 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

A704SM Grade Level 9, 10

1 Elective Credit

Physical Education courses provide students with the knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

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

A706SM Grade Level 10, 11, 12

1 Elective Credit

Physical Education courses provide students with the knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

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

A708SM Grade Level 10, 11, 12

1 Elective Credit

Physical Education courses provide students with the knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

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

WEIGHT CONDITIONING

A712SM Grade Level 9, 10, 11, 12

1 Elective Credit

Weight Training courses help students develop knowledge and skills with free weights and universal stations while emphasizing safety and proper body positioning; they may include other components such as anatomy and 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

A720SM Grade Level 9, 10, 11, 12

1 Elective Credit

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

PERSONAL/LIFE FITNESS

A738SM Grade Level 9, 10, 11, 12

1 Elective Credit

Lifetime Fitness Education courses emphasize acquiring knowledge and skills regarding lifetime physical fitness; content may include related topics such as nutrition, stress management, and consumer issues. Students may develop and implement a personal fitness plan. 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

A740SM Grade Level 9, 10, 11, 12

1 Elective Credit

Lifetime Fitness Education courses emphasize acquiring knowledge and skills regarding lifetime physical fitness; content may include related topics such as nutrition, stress management, and consumer issues. Students may develop and implement a personal fitness plan.

Prerequisite: Physical Education I



Career and Technology Education Course Descriptions

Career and Technology Education (CTE) prepares students for a wide range of careers. These careers require varying levels of education, from high school and post-secondary certificates, 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 of the identified Maryland Career Clusters.

COMPREHENSIVE HIGH SCHOOL COMPLETER PROGRAMS

(Students are required to complete requirements for University System of Maryland and/or a Career Technology Education Completer Program)

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 9-12 (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 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).

INTERACTIVE MEDIA PRODUCTION COMPLETER – 4 Credits

*Available at Boonsboro High School, North Hagerstown High School,
South Hagerstown High School, and Williamsport High School.*

PRINCIPLES OF MULTIMEDIA

A1030/A1030SM Grade Level 9, 10, 11, 12

1 Credit

Principles of Multimedia provides students with 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).

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.

ADVANCED INTERACTIVE MULTIMEDIA PRODUCTION

A1033/A1033SM Grade Level 11, 12

1 Credit

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 the 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).

INTERACTIVE MEDIA PORTFOLIO CAPSTONE

A1034SM Grade Level 11, 12

1 Credit

This capstone course enables students to apply what they learned in their previous academic and IMP classes to complete a challenging, client-driven project. Students work in teams to design and create a solution to satisfy or fill a client's need or want. Students are also expected to refine the products that comprise their portfolio to meet the specifications identified by the affiliate partner. Student teams make progress reports to their peers, meet regularly with their clients, and exchange constructive criticism and consultation. At the end of the course, teams present their projects to industry partners for feedback and professional review. This course equips students with the independent study skills that they will need in postsecondary education and careers in Interactive Media Production.

COMPUTER GAME DEVELOPMENT AND ANIMATION COMPLETER – 8 Credits

Available at Barbara Ingram School for the Arts

COMPUTER DESIGN AND GAME ANIMATION DEVELOPMENT FUNDAMENTALS

BICDGADF Grade Level 9, 10

2 Credits

This course is designed to introduce students to 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.

COMPUTER DESIGN AND GAME ANIMATION DEVELOPMENT I

BICDGAD2 Grade Level 9, 10

2 Credits

This course is designed to expose students to the 3D Game Engines: Game Maker, Unity 3D, Unreal Engine and others. Course topics will include programming languages, copyright laws, motion mechanics, narration and script writing, interactive storytelling, storyboarding, creating background music and game scores, graphic design for environment, graphic design for structures, graphic design for characters, Autodesk Maya and 3DS Max, and an introduction to the Foley Effect.

COMPUTER DESIGN AND GAME ANIMATION DEVELOPMENT II

BICDGAD3 Grade Level 11, 12

2 Credits

This course is designed to allow students to build on their previous knowledge of game design. Advanced topics covered will include Game Design Document II, Game Psychology Review, Advanced motion Mechanics, Advanced game programming and development (C#, C++), analysis game and animation technology trends, advanced game design (UI, Environment, Lighting), Sound score mastering, recording and staging live Foley effect, 3D particle effects and lighting, 2D and 3D rendering technologies review, video editing effects and rendering, plus Unity and Unreal game engine product development.

COMPUTER DESIGN AND GAME ANIMATION DEVELOPMENT CAPSTONE

BICDGADC Grade Level 11, 12

2 Credits

This course is designed to allow students to refine knowledge of the industry, and students will work on CGDA presentation events and SkillsUSA events. Students will make connections and build bridges for future success. Students will continue and finalize capstone projects, which will demonstrate not only GDCA skills, but interdepartmental cooperation. Completed portfolios will be presented and submitted for review. Students will have the opportunity to test for the Digital Literacy IC3 (Course Completer Certification Exam).

PHOTOGRAPHY & CINEMATOGRAPHY – 8 Credits

Available at Barbara Ingram School for the Arts

LEVEL I – 4 Credits

INTRO TO PHOTOGRAPHIC CONCEPTS

BIPAMC Grade Level 9, 10

2 Credits

This foundation course focuses on the art of digital photography and provides an overview of the creative media industry. Students demonstrate competencies that include being well-rounded artists and professionals, creative problem-solving skills, camera mechanics, rules of composition, copyright laws plus numerous other topics related to the art of digital photography. Students will explore the workspace and functions of Adobe Photoshop and Lightroom. Available at BISFA.

CINEMATOGRAPHY AND FILM PRODUCTION

BIACP1 Grade Level 9, 10

2 Credits

This course is designed to immerse students in the field of cinematography and film production. Topics include camera equipment, exposure, frame rate, resolution, file types, copyright for music and stock footage, camera operation and movement, recording and syncing audio, the moving image as art, the art of story creation and scriptwriting for film. Students create short films individually and as teams while practicing soft skills important to the career field. Students will explore the workspace and functions of Adobe Premiere Pro. Available at BISFA.

Prerequisite: Intro to Photographic Concepts

LEVEL II – 4 Credits

ADVANCED PHOTOGRAPHY AND CINEMATOGRAPHY

BIACP2 Grade Level 11, 12

2 Credits

This course provides students an extensive exploration of digital photography and cinematography. Students will learn the creative process and procedures involved in preparing a professional product. Advanced photographic topics will be explored such as deconstructing the photograph, creativity strategies for concepts, social documentary photography and advanced color photography. Students will also focus on creating several short films with given prompts or development of their own personal ideas. Preparation for portfolios begins for college and career recruitment. Adobe Photoshop, Lightroom and Premiere Pro techniques will progress throughout the course. CTE Pathway Concentrator Course. Available at BISFA.

Prerequisite: Photography and Cinematography I

PHOTOGRAPHY AND CINEMATOGRAPHY CAPSTONE

BIACBTC Grade Level 11, 12

2 Credits

Students will complete a program related capstone project by using personal video or photographic work for portfolio development. Other video topics include documentary and narrative filmmaking, creative lighting in cinematography, video as art, sound design for film, color grading and self-promotion as an artist. Photographic work will include large-scale photography, contemporary use of photography, socially engaged photography, professional strategies working in the field and the foundations of presenting work for display. The Capstone Portfolio Project will be presented to a panel that will include industry personnel, administration, and post high school educators. Students will be made aware of the importance of workplace etiquette, proper use of social media, and networking as well as other soft skills. Students will complete the Adobe Photoshop or Premiere Pro Certification Test. CTE Pathway Completer Course. Available at BISFA.

Prerequisite: Photography and Cinematography II

AUDIOVISUAL COMMUNICATIONS AND BROADCAST TECHNOLOGIES COMPLETER – 4 Credits

Available at North Hagerstown High School, Smithsburg High School and South Hagerstown High School

PRINCIPLES OF ARTS, MEDIA AND COMMUNICATION - BROADCASTING (AMC)

A2092/A2092SM Grade Level 10, 11, 12

1 Credit

This course is a broad overview of the A/V communications and broadcasting industry. It touches on each aspect of this industry: content creation, live broadcasting, recorded communications, tech support, live events, and PR management. Each of these aspects is broken down into teachable topics that cover a broad knowledge base. The careers available in each of these aspects are also explored. Culminating projects show student mastery of the topics along with smaller quizzes along the way.

AUDIOVISUAL COMMUNICATIONS AND PRODUCTION LEVEL 1

A2093/A2093SM Grade Level 10, 11, 12

1 Credit

The focuses of this course are more technical than the last and directed towards the operations of live television and radio. With regards to live television, students will learn how to write and read teleprompt scripts, how to use a camera on set, lighting, how to set up the A/V equipment, and how to perform a mic check. With regards to radio, students will learn how to perform a mic check, operate a mixing board, and set up the audio equipment. For recorded materials, students will learn how to properly edit and mix audio and sound. Students will begin Adobe Premiere Pro Training and experience interactions with industry professionals.

AUDIOVISUAL COMMUNICATIONS AND PRODUCTION LEVEL 2

A2094/A2094SM Grade Level 11, 12

1 Credit

This course provides students with the opportunity to advance their knowledge and skills in one of two areas: the production of television broadcast programs or radio production. Students may prepare and produce short programs, learning the advanced technical aspects of the operation, how to evaluate programming/broadcasting, and assess audience reaction and impact. Students will complete the Adobe Premiere Certification Test.

AUDIOVISUAL COMMUNICATIONS AND BROADCAST TECHNOLOGIES CAPSTONE

A2095/A2095SM Grade Level 11, 12

1 Credit

Students will complete a program-related capstone project. The instructor will make connections at local news and radio stations. Students will choose a station to partner with to complete a project given to them by that station. This course could be multifaceted in that the stations have problems that the students can solve remotely. The students can also work on senior highlights for the school news, local radio, etc. The options are vast. Students will complete their digital portfolio.

SOFTWARE SPECIALIST COMPLETER – 4 Credits

Available at Boonsboro High School, Clear Spring High School, Hancock High School, South Hagerstown High School, and Williamsport High School

PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT

A795/A795SM 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 OF ACCOUNTING AND FINANCE

A773/A773SM Grade Level 9, 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. 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.

OFFICE SYSTEMS - EXCEL

A786/A786SM Grade Level 9, 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.

OFFICE SYSTEMS - WORD

A789/A789SM 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.

BUSINESS MANAGEMENT COMPLETER – 4 Credits

Available at Hancock High School

PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT

A795/A795SM 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 OF ACCOUNTING AND FINANCE

A773/A773SM Grade Level 9, 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.

ADVANCED BUSINESS MANAGEMENT

A897/A897SM Grade Level 10, 11, 12

1 Accelerated 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.

BUSINESS MANAGEMENT CAPSTONE

A898/A898SM Grade Level 10, 11, 12

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.

FINANCE AND ACCOUNTING COMPLETER – 4 Credits

*Available at Boonsboro High School, Hancock High School,
and Williamsport High School*

PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT

A795/A795SM 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 OF ACCOUNTING AND FINANCE

A773/A773SM Grade Level 9, 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.

HONORS ACCOUNTING AND FINANCE II

A781H/A781HSM Grade Level 9, 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.

Prerequisite: Principles of Accounting and Finance

ACCOUNTING AND FINANCE III - CAPSTONE

A782H/A782HSM Grade Level 10, 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.

Prerequisite: Accounting and Finance II

MARKETING COMPLETER – 4 Credits

Available at Boonsboro High School, Clear Spring High School, and Hancock High School

PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT

A795/A795SM 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 OF ACCOUNTING AND FINANCE

A773/A773SM Grade Level 9, 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/A775SM Grade Level 9, 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.

MARKETING II

A776/A776SM Grade Level 9, 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.

CAREER RESEARCH AND DEVELOPMENT COMPLETER – 3 Credits

Available at Boonsboro High School, Clear Spring High School, Hancock High School, North Hagerstown High School, Smithsburg High School, South Hagerstown High School, and Williamsport High School

CAREER RESEARCH AND DEVELOPMENT

A802/A802SM Grade Level 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/A803SM Grade Level 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.

WORK-BASED LEARNING EXPERIENCE

A805/A805SM Grade Level 12

1 Credit

The work-based learning experience takes place at the work-site and must include a minimum of 135 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 completion program.

Prerequisite or concurrent enrollment in: Career Research and Development, Career Development Seminar

BARR ACADEMY / BARR CONSTRUCTION INSTITUTE

Electrical Construction, Heating, Ventilation, and Air Conditioning (HVAC), and Plumbing

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. Depending on the time of classes students may be required to provide their own transportation to and from the Barr Academy.

ELECTRICAL CONSTRUCTION COMPLETER

NCCER FOUNDATIONS OF BUILDING CONSTRUCTION (Electrical/Core Battery)

A2135/A2135SM Grade Level 11, 12

1 Credit

This course is designed to introduce basic construction safety. Explains how to use and read various length measurement tools, including standard and metric rulers and tape measures, and the architect's and engineer's scales. Explains decimal-fraction conversions and the metric system. Students will gain introductory knowledge of hand tools used by all trades, and power tools, including pneumatic, hydraulic, and electric-powered tools. Basic job site communications are covered and the skills expected from employers. Students are exposed to an introduction for materials handling. Covers resistive circuits, Kirchoff's voltage and current laws, and circuit analysis. Introduces series, parallel, and series-parallel circuits. Students will be instructed in wiring diagrams, schematics, and blueprint reading (types of drawings including civil, architectural, structural, mechanical, plumbing/piping, electrical, and fire protection) plus instructs trainees on how to interpret and use drawing dimensions. In-depth coverage of electrical symbols and electrical drawings are included. Students will learn to use various types of electrical testing equipment.

NCCER ELECTRICAL I

A2139/A2139SM

Grade Level 11, 12

1 Credit

Focuses on forces that are characteristic of alternating-current systems and the application of Ohm's law to AC circuits. Examines AC and DC motors, including the main components, circuits, and connections. Covers all types of bends in all sizes of conduit up to 6 inches and on mechanical, hydraulic, and electrical benders. This leads into the selection and size pull boxes, junction boxes, and handholes. This would include fuses and circuit breakers along with their practical applications. This class gives basic descriptions of various types of contactors and relays along with their practical applications. Prerequisite: NCCER Foundations of Building Construction

NCCER ELECTRICAL II

A2140/A2140SM

Grade Level 11, 12

1 Credit

Students begin with the factors involved in conductor selection, including insulation types, current-carrying capacity, temperature ratings, and voltage drop. Students will learn how to calculate branch circuit and feeder loads for residential and commercial applications. This course explains how to size and select circuit breakers and fuses for various applications plus how to do short circuit calculations and troubleshooting. The class will discuss transformer types, construction, connections, protection, and grounding. Covers calculations required to size conductors and overcurrent protection for motor applications. Also covered is the installation, termination, and testing of voice, data, and video cabling systems. Provides students with information on selecting, sizing, and installing motor controllers. Also covers control circuit pilot devices and basic relay logic. Concentrator Course, Prerequisite: NCCER Electrical Level I

NCCER ELECTRICAL III

A2141/A2141SM

Grade Level 11, 12

1 Credit

Topics include basic calculation procedures for commercial and residential applications. Explains the function and operation of basic electronic devices, including semiconductors, diodes, rectifiers, and transistors. Students gain knowledge of electric generators, storage batteries, Digital Alarm Communicator Systems (DACS), wiring for alarm initiating and notification devices. Covers the installation of electric circuits in health care facilities, including the requirements for life safety and critical circuits. Discusses motor cleaning, testing, and preventive maintenance. Also describes basic troubleshooting procedures. Describes NEC® requirements for selecting and installing equipment, enclosures, and devices in special locations including places of assembly, theaters, carnivals, agricultural buildings, marinas, temporary installations, wired partitions and swimming pools. Teaches the basic leadership skills required to supervise personnel. Discusses principles of project planning, scheduling, estimating, management, and presents several case studies for student participation. Completer Course, Prerequisite: NCCER Electrical Level II

HEATING, VENTILATION AND AIR CONDITIONING COMPLETER

NCCER FOUNDATIONS OF BUILDING CONSTRUCTION (HVAC /Core Battery)

A2135/A2135SM

Grade Level 11, 12

1 Credit

Presents basic jobsite safety information to prepare workers for the construction environment. Describes the common causes of workplace incidents and accidents and how to avoid them. Introduces common PPE, including equipment required for work at height, and its proper use. Information related to safety in several specific environments, including welding areas and confined spaces. Reviews basic mathematical functions and explains their applications to the construction trades. Students learn how to use and read various length measurement tools. Introduces common hand tools that are widely used in the construction industry, such as hammers, saws, levels, pullers, and clamps. Students are given the specific applications of each tool and shows how to use them properly. Explained are the different types of drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, and fire protection) and instructs trainees on how to interpret and use drawing dimensions. This class explains how ropes, chains, hoists, loaders, and cranes are used move material and equipment from one location to another on a job site technique for communicating effectively with co-workers and supervisors. Includes practical examples that emphasize the importance of verbal and written information and instructions on the job.

NCCER HEATING, VENTILATION AND AIR CONDITIONING I (HVAC I)

A2142/A2142SM

Grade Level 11, 12

1 Credit

Students learn about transformers, single phase and three-phase power distribution, capacitors, the theory and operation of induction motors, and the instruments and techniques used in testing AC circuits and components. The class explains the operating principles of various compressors used in comfort air conditioning and refrigeration systems, pure and blended refrigerants, reverse cycle heating, describes the operation of the various types of heat pumps, describes how to analyze heat pump control circuits, fossil-fuel furnaces, sheet metal ductwork, fiberglass ductwork and fittings, water heating systems and safe operation of the low-pressure boilers and piping systems along with basic installation, service, and repair procedures for these compressors. Covers the principles of reverse cycle heating. Describes the systems, equipment, and operating sequences used in a variety of commercial airside system configurations, such as constant volume single-zone and multi-zone, VVT, VAV, and dual-duct VAV. Prerequisite: NCCER Foundations of Building Construction

NCCER HEATING, VENTILATION AND AIR CONDITIONING II (HVAC II)

A2143/A2143SM Grade Level 11, 12

1 Credit

Students learn to use a variety of fasteners, hardware and wiring terminations used in HVAC systems including the installation of these components. Introduces the product refrigeration components and systems, such as the reach-in coolers and freezers commonly used in markets. Reviews heat pump operation and heat pump control circuits, including how to isolate and correct faults in the heating, cooling, auxiliary heat, and defrost functions of heat pumps. Students learn about tools, instruments, and techniques used in troubleshooting gas heating appliances, oil furnaces and offers hands-on experience in isolating and correcting oil furnace malfunctions, humidifiers, electronic air cleaners, economizers, zone controls, heat recovery ventilators, troubleshoot and repair zoned, ductless and variable refrigerant flow systems. Covered are the various types of boilers, components, and piping systems used in commercial heating applications. Also introduces chilled water systems and their components and refrigeration components and systems, such as the reach-in coolers and freezers commonly used in markets. This class also covers operating principles, piping systems, components, and preventive maintenance requirements of steam systems and steam traps. Provides hands-on lab sessions on how to troubleshoot humidifiers, electronic air cleaners, economizers, zone controls, and heat recovery ventilators. Concentrator Course, Prerequisite: NCCER HVAC Level I

NCCER HEATING, VENTILATION AND AIR CONDITIONING III (HVAC III)

A2144/A2144SM Grade Level 11, 12

1 Credit

Students review the kinds of water problems encountered in heating and cooling systems and identifies various water treatment methods and equipment. Defines the issues associated with indoor air quality and its effect on the health and comfort of building occupants. Provides guidelines for performing an IAQ survey. This class covers the various heat recovery/reclaim devices, along with other energy recovery equipment used to reduce energy consumption in HVAC systems, explains how computers and microprocessors are used to manage zoned HVAC systems, teaches the students about air properties and gas laws, as well as the use of psychrometric charts, interpret the various drawings used in commercial construction, including mechanical drawings, specifications, shop drawings, identifies and explains the factors that affect heating and cooling loads. This class also discusses EPA guidelines, trade licensure, and working as a crew leader. Completer Course, Prerequisite: NCCER HVAC Level II

NCCER PLUMBING COMPLETER

NCCER FOUNDATIONS OF BUILDING CONSTRUCTION (Plumbing/Core Battery)

A2135/A2135SM Grade Level 11, 12

1 Credit

Presents basic jobsite safety information to prepare workers for the construction environment. Describes the common causes of workplace incidents and accidents and how to avoid them. Introduces common PPE, including equipment required for work at height, and its proper use. Information related to safety in several specific environments, including welding areas and confined spaces. Reviews basic mathematical functions and explains their applications to the construction trades. Students will use and read various length measurement tools, including standard and metric rulers and tape measures, and the architect's and engineer's scales. Students learn how to use decimal-fraction conversions and the metric system, using practical examples. Introduces common hand tools and power tools that are widely used in the construction industry, such and explains the specific applications of each tool and shows how to use them properly. Also discusses important safety and maintenance issues related to hand tools. Introduces trainees to the different types of plumbing drawings and symbols they will encounter on the job. Introduces trainees to the different types of plastic pipe and fittings used in plumbing applications, including ABS, PVC, CPVC, PE, PEX, and PB.

NCCER PLUMBING I

A2145/A2145SM Grade Level 11, 12

1 Credit

Students will be able to identify and interpret civil, architectural, structural, HVAC/ mechanical, plumbing, and electrical drawings. Discusses how to ensure accurate dimensions, generate RFIs, and locate plumbing entry points, as well as how to establish piping routes and fixture locations. Isometric drawings, material takeoffs, approved submittal data, and Building Information Management (BIM). Introduces methods for adjusting structural members, insulating pipe, and installing firestopping. Covers reinforcement techniques for modified structural members; how to measure, cut, and install fiberglass and flexible foam insulation; and how to identify walls, floors, and ceilings that require fire-stopping. Explains how to locate, install, connect, and test a complete drain, waste, and vent (DWV) system. Teaches proper techniques for locating, installing, and testing complete water service and distribution systems, installing, connecting, and testing a complete drain, waste, and vent (DWV) system. Discusses gas-fired, electric, tankless, heat pump, indirect water heaters, electrical safety and the principles of electricity including voltage, current, resistance, and power. Prerequisite: NCCER Foundations of Building Construction

NCCER PLUMBING II

A2146/A2146SM Grade Level 11, 12

1 Credit

Teaches techniques for sizing water supply systems, including calculating system requirements and demand, developed lengths, and pressure drops. Reviews the factors that can reduce efficiency of water supply piping. Introduces backflow prevention devices and explains how they work, where they are used and how they are installed in water supply systems. Explains how to disinfect, filter, and soften water supply systems. Discusses how to troubleshoot water supply problems, calculate drainage fixture units for waste systems, installation, diagnosis, and repair of pumps, controls, and sumps in sewage and storm water removal systems. Students will gain an understanding of the principles of compressed air systems and describes their components and accessories Reviews installation and periodic servicing of air compressor systems. Covers the troubleshooting and repair of fixtures, valves and faucets in accordance with code and safety guidelines. Concentrator Course, Prerequisite: NCCER Plumbing Level I

NCCER PLUMBING III

A2147/A2147SM Grade Level 11, 12

1 Credit

Introduces trainees to concepts and practices that are essential for competitive, successful plumbing businesses. Covers basic business accounting and project estimating, as well as techniques for cost control and task organization. Introduces trainees to the knowledge and skills required for team leadership plus overs practical information about today's construction industry. Discusses the different types of codes used by plumbers across the country and explains how those codes are written, adopted, modified, and implemented. Describes the types of private sewage systems, discusses the maintenance and replacement of these systems, and explains how to determine the local code requirements for these systems. Completer Course, Prerequisite: NCCER Plumbing Level II

CARPENTRY COMPLETER – 4 Credits

Available at Boonsboro High School, Hancock High School, Smithsburg High School, and South Hagerstown High School

FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY (CORE)

A908/A908SM

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/A910SM

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.

CARPENTRY II

A912/A912SM

1 Credit

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. 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.

Prerequisite: Carpentry I

CARPENTRY CAPSTONE

A913SM

1 Accelerated Credit

This class focuses on the advanced design necessary to work within the Carpentry and Construction field. Advanced architectural design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). Students will have the opportunity to experience CAD and if time allows students will have the opportunity to transition into Revit Architecture. Primary focus will be to design and develop drawings that are used in the construction industry. This class will be the capstone that pulls everything together from the conception to the final product. Students will be design and construct a capstone project and/or a co-op experience. Student will have the opportunity to test for NCEER Carpentry 2 Certification, AutoCAD User Certification, and/or Revit User certification. Co-op/apprenticeship may be available to qualifying students.

CONSTRUCTION DESIGN AND MANAGEMENT COMPLETER – 4 Credits

*Available at Boonsboro High School, South Hagerstown High School,
and Williamsport High School*

INTRODUCTION TO CONSTRUCTION AND DESIGN

A934/A934SM

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/A935SM

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.

ADVANCED DESIGN AND 3-D MODELING

A936/A936SM

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.

ADVANCED CONSTRUCTION MANAGEMENT

A937/A937SM

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.

FOOD AND BEVERAGE MANAGEMENT COMPLETER – 4 Credits

Available at North Hagerstown High School and South Hagerstown High School

BECOMING A FOOD SERVICE PROFESSIONAL (LEVEL 1)

A819/A819SM 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 day 1 of the class to meet the 400-hour work-based learning experience requirement for the completer. Two hundred (200) of the 400 hours can be earned through unpaid clinical experience. The course prepares students to take the National Restaurant Association Level I exam at the end of the course.

BECOMING A FOOD SERVICE PROFESSIONAL (LEVEL 2)

A820/A820SM 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. Students earn the ServSafe Certification.

Prerequisite: Becoming a Food Service Professional (Level 1).

PRACTICAL EXPERIENCE AS A FOOD SERVICE PROFESSIONAL

A821/A821SM 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, paid work-based learning experience. Students may begin accumulating hours from day one of the Level 1 Food Service Professional class.

HOSPITALITY AND TOURISM MANAGEMENT COMPLETER – 4 Credits

Available at North Hagerstown High School

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.

MARKETING

A775/A775SM 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.

HOSPITALITY AND TOURISM MANAGEMENT

A1041/A1041SM Grade Level 10, 11, 12

1 Accelerated 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.

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.

POWER MECHANICS COMPLETER – 3 Credits

Available at Boonsboro High School and Clear Spring High School

AGRICULTURE SCIENCE

A921/A921SM

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, aquiculture, aquaculture, genetic engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science.

POWER MECHANICS I

A865/A865SM

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.

Prerequisite: Agricultural Science

POWER MECHANICS II

A866/A866SM

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.

Prerequisite: Power Mechanics I

HORTICULTURE COMPLETER – 4 Credits

Available at Boonsboro High School and Clear Spring High School

AGRICULTURE SCIENCE

A921/A921SM

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, aquiculture, aquaculture, genetic engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science.

HORTICULTURE SCIENCE

A922/A922SM

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.

Prerequisite: Agricultural Science

GREENHOUSE

A1002/A1002SM

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).

Prerequisite: Horticulture

NURSERY LANDSCAPE/TURF MANAGEMENT

A923/A923SM

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.

Prerequisite: Horticulture Science

ADVANCED FLORAL DESIGN

A1071/A1071SM

1 Elective Credit

Advanced Floral Design teaches students basic elements and principles of design while familiarizing them with the material and tools of floral design. Professionally designed floral designs, arrangements or artwork incorporate the elements of floral design: line, form, space, texture, and color, and the principles of floral design: balance, proportion, rhythm, contrast, harmony, and unity. Proper use of the color wheel will be taught and used to select color schemes for construction of basic geometric arrangements, corsages, and boutonnieres. Students will learn to identify and care for flowers, while learning to select quality materials in design, construction, and marketing of floral products.

CURRICULUM FOR AGRICULTURE SCIENCE EDUCATION (CASE) COMPLETER – 4 Credits

Available at Smithsburg High School

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

A1020/A1020SM

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.

PRINCIPLES OF AGRICULTURAL SCIENCE - PLANT SCIENCE

A1021/A1021SM

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 horticulturists, 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.

ANIMAL AND PLANT BIOTECHNOLOGY

A1022/A1022SM

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).

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT

A1023/A1023SM

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.

CURRICULUM FOR AGRICULTURE SCIENCE EDUCATION (CASE) AGRICULTURAL ENGINEERING COMPLETER – 4 Credits

Available at Smithsburg High School

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.

AGRICULTURE POWER AND TECHNOLOGY

A1081

1 Credit

The focus of Agricultural Power and Technology (APT) is to expose to students to mechanics, power, technology, and career options in the world of agriculture. Students participating in the APT course will have experiences in various mechanical and engineering concepts with exciting hands-on activities, projects, and problems. Student's experiences will involve the study of energy, tool operation and safety, material properties, machine operation, and structural components. Students will acquire the basic skills to operate, repair, engineer, and design agricultural tools and equipment and apply the engineering principles to the construction of machines and structures. 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.

MECHANICAL SYSTEMS IN AGRICULTURE

A1082

1 Credit

The Mechanical Systems in Agriculture course is designed to provide rigorous applications in the agricultural engineering field. Throughout the course, students apply technical and engineering skills while becoming competent in the processes used to operate, repair, engineer, and design agricultural structures, engines, and equipment. Students practice technical skills including reading prints, troubleshooting machines, documenting an engine tear down and assembly, reading schematics, researching machine replacement parts, and calculating production efficiencies. The engineering portion of the course includes prototype development, computer aided design (CAD), 3D printing, documentation of machine processes, machine automation and programming, testing designs for structural integrity, and calculating machine speed and power. Students will maintain an Engineering Notebook throughout the course documenting their experiences in the shop and laboratory. Research and engineering design will be highlighted as students develop and conduct industry appropriate engineering projects.

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.

CURRICULUM FOR AGRICULTURE SCIENCE EDUCATION (CASE) NATURAL RESOURCES COMPLETER – 4 Credits

Available at Smithsburg High School and South Hagerstown High School

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

A1020/A1020SM

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.

NATURAL RESOURCES AND ECOLOGY

A2100SM

1 Credit

This course is a foundation course within the CASE sequence of courses. The course provides students a variety of experiences in the fields of natural resources and ecology. Students will explore hands-on projects and activities while studying topics such as land use, water quality, stewardship, and environmental agencies. Study of the natural world including biomes, land, air, water, energy, use and care as well as a focus on issues surrounding man's interaction with the Earth will be addressed in this course. Students will select an ecosystem to study throughout the course and apply principles of natural resources and ecology from each unit of study to that ecosystem.

ENVIRONMENTAL SCIENCE ISSUES

A2101SM

1 Credit

Students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the environmental science field, allowing students to build content knowledge and technical skills. Students will investigate areas of environmental science including ecosystem management, sustainable agriculture, energy choices, and pollution. Students are immersed in inquiry-based exercises filled with activities, projects, and problems, which develop data acquisition and analysis techniques, critical thinking and evaluation abilities related to environmental issues, as well as independent research and problem solving.

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT

A1023/A1023SM

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.

ENVIRONMENTAL RESOURCE MANAGEMENT COMPLETER – 4 Credits

Available at Boonsboro High School

AGRICULTURE SCIENCE

A921/A921SM

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, aquiculture, aquaculture, genetic engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science.

FISH/WILDLIFE

A909/A909SM

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.

Prerequisite: Agriculture Science

FORESTRY/SOILS

A920/A920SM

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.

Prerequisite: Agriculture Science

INTRODUCTION TO SUSTAINABLE AGRICULTURE (Dual Credit)

A1080/A1080SM

1 Credit

Introduction to Sustainable Agriculture is a one-semester course designed for students interested in exploring sustainable methods of agriculture to minimize the impacts of conventional agricultural practices on the natural environment. Students will research the diverse viewpoints associated with different aspects of agriculture, and agricultural sustainability, from various natural science perspectives, as well as other disciplines. In addition, students will critically examine some of the intended and unintended consequences of agriculture, and the various questions these raise about sustainability. Examples will be drawn from current and historical practices of agriculture. This course is a possible dual credit. This course is designed to provide students with the opportunity to earn college credit.

Prerequisite: Forestry/Soils and Fish/Wildlife

ENVIRONMENTAL AGRICULTURAL SCIENCE ACADEMY ANIMAL SCIENCE COMPLETER – 4 Credits

Available at Clear Spring High School

AGRICULTURE SCIENCE

A921/A921SM 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.

PRODUCTION AND COMPANION ANIMALS

A1013/A1013SM Grade Level 10, 11, 12

1 Credit

This course is a general introduction to the industry associated with large production and small companion animals, its history, the careers available, and the importance of safety and the environment. Marketing and management of animal agriculture through selection, breeding, feeding and food safety, health, housing, and equipment are emphasized (animal pathway course).

Prerequisite: Foundations of Environmental/Agricultural Science

VETERINARY TECHNOLOGY

A1007/A1007SM Grade Level 10, 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).

Prerequisite: Foundations of Environmental/Agricultural Science

BIOTECHNOLOGY

A868/A868SM Grade Level 9, 10, 11, 12

1 Elective 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

ENVIRONMENTAL AGRICULTURAL SCIENCE ACADEMY ENVIRONMENTAL COMPLETER – 4 Credits

Available at Clear Spring High School

AGRICULTURE SCIENCE

A921/A921SM 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.

AQUATICS AND WILDLIFE

A1014/A1014SM 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).

Prerequisite: Foundations of Environmental/Agricultural Science

FORESTRY, SOILS AND THE ENVIRONMENT

A1015/A1015SM 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 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).

Prerequisite: Foundations of Environmental/Agricultural Science

HOMELAND SECURITY & EMERGENCY PREPAREDNESS COMPLETER – 4 Credits

Available at Boonsboro High School and South Hagerstown High School

FOUNDATIONS OF HOMELAND SECURITY AND EMERGENCY PREPAREDNESS

A1024/A1024SM

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.

HOMELAND SECURITY I

A1025/A1025SM

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.

Prerequisite: Foundations of Homeland Security and Emergency Preparedness.

HOMELAND SECURITY II--RESEARCH METHODS AND APPLICATIONS

A1026/A1026SM

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.

Prerequisite: Homeland Security I

INTERNSHIP/CAPSTONE EXPERIENCE

A1027/A1027SM

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.

Prerequisite: Homeland Security II--Research Methods and Applications

ACADEMY OF TEACHING PROFESSIONS COMPLETER – 4 Credits

Available at Boyd J. Michael, III Technical High School, Clear Spring High School, Hancock High School, North Hagerstown High School, South Hagerstown High School, and Williamsport High School,

HUMAN GROWTH AND DEVELOPMENT THROUGH ADOLESCENCE EDU 114 (Dual Credit)

A441 Grade Level 10, 11, 12

1 Accelerated 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.

TEACHING AS A PROFESSION EDU 101 (Secondary) or EDU 103 (Elementary) (Dual Credit)

A442 Grade Level 10, 11, 12

1 Accelerated 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.

FOUNDATIONS OF CURRICULUM AND INSTRUCTION PSY203 (Dual Credit)

A443 Grade Level 11, 12

1 Accelerated 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.

EDUCATION ACADEMY INTERNSHIP EDU240 (Dual Credit)

A2034SM Grade 12

1 Accelerated Credit

Education Academy Internship (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 may have the opportunity to test for the ParaPro and Praxis 1 exams. This course is designed to provide students with the opportunity to earn college credit.

ALLIED HEALTH PROFESSIONS - SPORTS MEDICINE – 3 Credits

Available at Boonsboro High School and Smithsburg High School

FOUNDATIONS OF SPORTS MEDICINE AND HEALTH SCIENCE

A2105SM Grade Level 9, 10, 11, 12

1 Credit

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

STRUCTURE AND FUNCTIONS OF THE HUMAN BODY (Dual Credit)

A2106SM Grade Level 10, 11, 12

1 Accelerated Credit

Students in this course 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 systems and special senses. Students will investigate the body's responses to the external environment, maintenance of homeostasis, electrical interactions, transport systems, and energy processes. Students will conduct laboratory investigations and fieldwork, use scientific methods during investigations to solve problems and make informed decisions. Students will learn the medical terminology related to body systems. It is recommended that students have completed biology and be concurrently enrolled in chemistry. This class is a dual credit course and aligns with BIO 116 at HCC with the opportunity for the student to gain college credit.

CARE AND PREVENTION OF ATHLETIC INJURIES (Dual Credit)

A2107SM Grade Level 11, 12

1 Credit

This course provides students' knowledge of specific areas of sports-related injuries. It is an dual credit course aligned with PED 216: Care and Prevention of Athletic Injuries at Hagerstown Community College. Students may elect to take this course for both WCPS and HCC credit (worth 3 college credits). This course is designed to provide students with an overview of the care of athletic injuries and how to prevent these injuries from occurring. Students will discuss Legal Issues, Emergency Plans, Introduction to Injury, Mechanisms of Injury, Prevention of Injury, First Aid, Anatomy and mechanics of the joint, Conditioning, Concussion awareness, Life threatening injuries, Cardiac, head/brain, spinal, respiratory, circulatory, thoracic/internal injuries, EpiPen, and seizures.

ALLIED HEALTH INTERNSHIP

A2108SM Grade Level 12

1 Credit

The Allied Health Internship Course is designed to give students supervised practical application of previously studied theory. Students enrolled in the AHP Pathway Options of Dental Assisting, Certified Clinical Medical Assistant (CCMA), Physical Rehabilitation, Nationally Recognized Pharmacy Technician, Other Medical Specialty Course, or Dual Enrollment which do not have a specific, required clinical experience aligned to the content, should choose this course to complete the AHP program of study. Those students should take this course for one (1) credit.

CNA/GNA (Dual Credit)

Grade Level 10, 11, 12

1 Credit

For students who wish to complete a certificate program in practical nursing. The nursing program is approved by the Maryland State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN). The nursing program is designed to provide students with the knowledge, skill, and understanding necessary to function effectively in all areas of practical nursing. Graduates of the nursing program are eligible to apply to sit for the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

COMPUTER SCIENCE COMPLETER – 3 Credits

*Available at Boonsboro High School, Clear Spring High School, Hancock High School,
North Hagerstown High School, Smithsburg High School, South Hagerstown High School, and Williamsport High School*

AP 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.

AP COMPUTER SCIENCE A (Dual Credit)

A364AP 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

ROBOTICS, MICROPROCESSORS AND MICROCONTROLLERS (Dual Credit)

A877/A877SM Grade Level 9, 10, 11, 12

1 Credit

In this course, students will study the basics of microprocessors/microcontrollers and their applications in industry. A number of topics are covered, including: introduction to C programming language, assembly language, logic gates, hardware configurations, pin functions, modes of operation, and basic input/output timing, control and memories. The goal is for students to be able to design, analyze, and program microprocessors – to be used in a functioning robot. Students will be encouraged to participate in a Vex Robotics competition as an application of the skills obtained during the class. This is being offered as an elective and is not part of a four course completer pathway. Student selection is based upon teacher discretion. This could be a possible dual credit.

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.

HONORS FOUNDATIONS OF COMPUTER SCIENCE

A350H/A350HSM 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 course 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.

ADVANCED C++ (Dual Credit)

A361/A361SM Grade Level 11, 12

1 Elective 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.

**Project Lead the Way (PLTW) Aerospace or Computer
Integrated Manufacturing (2 Options) – 3 Credits***Available at Williamsport High School***Option1 PLTW Aerospace**

*Students must complete all PLTW Aerospace courses as well as complete one High School Aviation Pathway course per year.

INTRODUCTION TO ENGINEERING DESIGN (IED)

A855 Grade Level 9-12

2 Credits

This course is designed to introduce the computer software used to produce, analyze and evaluate models of projects solutions within. Students study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. Students will also be able to apply the design process to solve various problems in a team setting and explore career opportunities in design engineering and understand what skills and education these jobs require.

AEROSPACE

A863/A863SM 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.

ENGINEERING DESIGN AND DEVELOPMENT

A858/A858SM 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.

HIGH SCHOOL AVIATION

This program consists of two different pathways, Pilot and Unmanned Aircraft Systems (UAS). The Aircraft Owners and Pilots Association (AOPA) curriculum allows students the flexibility.

PRINCIPLES OF AVIATION AND AEROSPACE

A8854/A8854SM Grade 9

1 Credit

The course provides the foundation for both pathways and gives students a clear understanding of career opportunities in aviation and aerospace and the critical issues affecting the industry. Students will learn about engineering practices, problem-solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible. Students will also begin to drill down into the various sectors of aviation and the elements that make up the aerospace ecosystem. They will discover how advances in aviation created a need for regulation and learn about the promulgation of civil aviation oversight. Students will explore modern innovations and develop innovative ideas to address the aviation industry's real-world challenges. They will be exposed to various career options in aviation and aerospace and take an in-depth look at available opportunities.

INTRODUCTION TO FLIGHT AND AIRCRAFT SYSTEM

A1163/A1163SM Grade 10

1 Credit

Students pursuing the Pilot and UAS tracks will look closely at the aircraft they may one day operate. Students will begin with an exploration of the types of aircraft in use today before learning how aircraft are made and how they fly. Students will understand how aircraft are categorized, be able to identify their parts and learn about aircraft construction techniques and materials. They will gain an in-depth understanding of the forces of flight—lift, weight, thrust, and drag—including how to make key calculations. They will then touch on aircraft design, looking at stability, aircraft controls, and maneuvering flight. The course will focus on career skills related to these topics. Students will look in-depth at the systems that make crewed and uncrewed aircraft work. Beginning with aircraft powerplants and fuel systems, students will learn about the options available and how they affect aircraft design and performance. They will explore other key aircraft systems, including electrical, pitot-static, and vacuum systems. Throughout the course, they will learn about the flight instruments associated with each system and how to identify and troubleshoot common problems. This unit also covers aircraft flight manuals and required aircraft documents. Finally, students will learn about the factors that affect aircraft performance and how to determine critical operating data for aircraft.

Pilot Pathway

THE FLYING ENVIRONMENT AND FLIGHT PLANNING

A1037/A1037SM Grade 11

1 Credit

This course is foundational for both crewed and uncrewed aviation. It will prepare students to take either Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include preflight procedures, airspace, radio communications, aviation terminology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures. The Flight Planning course will cover the remaining topics necessary for students to take the Federal Aviation Administration's Private Pilot Knowledge Test. Students will learn about pilot and aircraft qualifications, cross-country flight planning, weight and balance, performance and limitations, human factors, chart use, night operations, navigation systems, and aeronautical decision-making. Students will be provided the opportunity to participate in multiple practice examinations. At the end of this course, a school may choose to arrange for students to take the Federal Aviation Administration's Private Pilot written exam.

CAPSTONE EXPERIENCE

A1036/A1036SM Grade 12

1 Credit

Students will examine advanced aviation topics and career options after preparing for the Private Pilot Knowledge Test or Part 107 Remote Pilot Test in the previous year. Instrument flight, commercial aviation, and advanced aircraft systems begin the semester. Looking into the future, students will then explore new horizons in the aerospace industry. What might aviation look like five, ten, or twenty years into the future? The focus then turns to business development opportunities in aviation. The capstone course is the culmination of the student learning experience. The students will work individually or in small groups to study and report on an aviation topic of their choosing. The goal of this capstone course is to allow students to demonstrate an understanding of a contemporary topic in aviation. The curriculum will include presentations and activities to help guide student research and project development.

UAS Pathway

THE FLYING ENVIRONMENT AND FLIGHT PLANNING

A1037/A1037SM Grade 11

1 Credit

This course is foundational for both crewed and uncrewed aviation. It will prepare students to take either Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include preflight procedures, airspace, radio communications, aviation terminology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures. The Flight Planning course will cover the remaining topics necessary for students to take the Federal Aviation Administration's Private Pilot Knowledge Test. Students will learn about pilot and aircraft qualifications, cross-country flight planning, weight and balance, performance and limitations, human factors, chart use, night operations, navigation systems, and aeronautical decision-making. Students will be provided the opportunity to participate in multiple practice examinations. At the end of this course, a school may choose to arrange for students to take the Federal Aviation Administration's Private Pilot written exam. The UAS Operations course will cover many topics surrounding UAS missions, from mission planning to UAV performance to crew resource management. Students may take the Federal Aviation Administration's Part 107 Remote Pilot Knowledge Test upon completion of this course.

A WORLD OF UAS AND THE CAPSTONE EXPERIENCE

A1035/A1035SM Grade 12

1 Credit

After preparing for the Part 107 Remote Pilot Test the previous year, students can earn a valuable FAA certification and CTE stackable credential to work as commercial drone pilots. This year, they will use that certification—and the knowledge they acquired pursuing it—in real-world scenarios that illustrate how drones are used across various industries today. Students will also learn how drone operations can be used to build or enhance a business and the entrepreneurial skills necessary to get a start-up off the ground. They will also review drone rules within their communities, enabling them to make recommendations to elected officials on optimizing UAS operations in their communities. The capstone experience is the culmination of the student learning experience. The students will work as individuals or in small groups to study and report on a UAS topic of their choosing. The goal of this capstone course is to allow students to demonstrate an understanding of contemporary topics in the drone industry. The curriculum will include presentations and activities to help guide student research and project development.

Option 2 PLTW Computer Integrated Manufacturing

INTRODUCTION TO ENGINEERING DESIGN (IED)

A855

2 Credits

This course is designed to introduce the computer software used to produce, analyze and evaluate models of projects solutions within. Students study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. Students will also be able to apply the design process to solve various problems in a team setting and explore career opportunities in design engineering and understand what skills and education these jobs require.

COMPUTER INTEGRATED MANUFACTURING (CIM) III

A857/A857SM

1 Accelerated Credit

This pathway course teaches the fundamentals of computerized manufacturing technology. It builds on the solid-modeling skills developed in the Introduction to Engineering Design course. Students use 3-D computer software to solve design problems. They assess their solutions through mass propriety analysis (the relationship of design, function and materials), modify their designs, and use prototyping equipment to produce 3-D models. Students will also have the chance to program robots to handle materials in assembly-line operations.

ENGINEERING DESIGN AND DEVELOPMENT

A858/A858SM

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.

ELECTIVE

PRINCIPLES OF ENGINEERING

A854/A854SM

1 Elective 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. This class can be used as the Technology Credit for graduation.

APPRENTICESHIP MARYLAND PROGRAM – 4 Credits

Courses listed below are Pass/Fail

Available at Barbara Ingram School for the Arts, Boonsboro High School, Clear Spring High School, Hancock Middle/Senior High School, North Hagerstown High School, Smithsburg High School, South Hagerstown High School, Washington County Job Development Center, Washington County Technical High School and Williamsport High School

APPRENTICESHIP I (RELATED INSTRUCTION)

A2075SM Grade Level 11, 12

1 Credit

Students are required to complete related classroom instruction. The classroom instruction can be offered prior to or simultaneously with the work-based learning experience. The overarching goals of the related classroom instruction to the apprenticeship are to personalize the learning process for students by integrating information from their classroom instruction with information learned at the worksite. This part of the work-based learning experience includes 110 hours which takes place at a work-site and must be a paid experience (at least minimum wage).

APPRENTICESHIP II

A2076SM Grade Level 11, 12

1 Credit

This part of the work-based learning experience includes 110 hours which takes place at a work-site and must be a paid experience (at least minimum wage). This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. Continuous supervision and regular communication among the student, employer, and WBL coordinator will provide the student with feedback and evaluation results from their WBL placements. In addition, the student will formulate a process for reflection and evaluation of their own skill development.

APPRENTICESHIP III

A2077SM Grade Level 11, 12

1 Credit

This part of the work-based learning experience includes 110 hours which takes place at a work-site and must be a paid experience (at least minimum wage). This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. Continuous supervision and regular communication among the student, employer, and WBL coordinator will provide the student with feedback and evaluation results from their WBL placements. In addition, the student will formulate a process for reflection and evaluation of their own skill development.

APPRENTICESHIP IV

A2078SM Grade Level 11, 12

1 Credit

This part of the work-based learning experience includes 120 hours which takes place at a work-site and must be a paid experience (at least minimum wage). This experience is directed by the WBL agreement provided by the school system and a student work plan developed among the student, WBL coordinator, and eligible employer. Continuous supervision and regular communication among the student, employer, and WBL coordinator will provide the student with feedback and evaluation results from their WBL placements. In addition, the student will formulate a process for reflection and evaluation of their own skill development. All four parts of WBL experience must cumulate to a minimum of 450 hours.

PROGRAMS OFFERED AT THE BOYD J. MICHAEL III TECHNICAL HIGH SCHOOL

KEY INFORMATION

- Boyd J. Michael III Technical High School, one of Washington County's nine high schools, has a career and technology focus. Juniors and seniors complete all their academic and technology studies at Boyd J. Michael III 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 Boyd J. Michael III Technical High School graduation exercises and may also choose to participate with their community school. Students participating in graduation ceremonies at Boyd J. Michael III Technical High School and their community schools will receive their Boyd J. Michael III Technical High School diplomas at their community schools.
- The following academic courses are taught at Boyd J. Michael III Technical High School: English/Honors English 11, English/Honors English 12, AP English Literature, AP English Language, World History, Honors World History, Honors Sociology, AP Psychology, Algebra II, Honors Algebra II, Honors Precalculus, Trigonometry, AP Calculus, Financial Literacy, Honors Chemistry, Honors Physics, Digital Electronics, PE-Weight Conditioning, Yearbook, Public Speaking, Advanced Anatomy, College Algebra, AP Chemistry, AP Physics, AP World History, AP Human Geography, Introduction to Statistics, Journalism, Creative Writing, Earth Space Science, AP Environmental Science, Land/Turf Management, and Horticulture Science.
- Honors, Advanced Placement, and Dual Credit 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 Boyd J. Michael III 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 Boyd J. Michael III 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.

BOYD J. MICHAEL III HIGH SCHOOL COMPLETER PROGRAMS

(Students are required to complete requirements for University System of Maryland and/or a Career Technology Education Completer Program)

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 9-12 (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

Forensic Science

Advanced Placement Environmental Science

Marine Science/Oceanography

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).

CONSTRUCTION AND BUILDING TRADES – 8 Credits

INTRODUCTION TO CONSTRUCTION DESIGN AND MANAGEMENT AND CONSTRUCTION SAFETY

A2004

2 Credits

This course is an introduction to the construction industry, with a focus on residential and commercial building systems. Students will practice basic carpentry skills, including proper tool use, power and hand, and proper safety. Students will have the opportunity to be on an active build site and practice their introductory skills. Students will also develop an understanding of the design and construction process. Students will have the opportunity to test for OSHA 10 Certification.

CIVIL ARCHITECTURE SITE DEVELOPMENT AND INTRODUCTION TO ACTIVE BUILDING SITES

A2005

2 Credits

This class will introduce students to surveying and the site development process. Students will also be introduced to the equipment that is used on an active work site, including power tools and other construction and carpentry equipment. This class also allows students to further their carpentry skills as they work on an active build site or house project that is provided by the program. Students will have the opportunity to test for NCEER Carpentry 1 Certification.

CONSTRUCTION PLAN READING AND DEVELOPMENT AND PRINCIPLES OF CONSTRUCTION DESIGN

A2006

2 Accelerated Credits

This class will introduce students to plan reading and plan development. This class will examine the materials, codes and the engineering that is used in construction. These tasks will be completed as students are able to work at an active build site. 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 will continue to participate in a school-based business "house project" where they experience building a complete house from start to finish. Students may have the opportunity to test for Forklift Certification.

ADVANCED DESIGN AND 3D MODELING AND ADVANCED CONSTRUCTION MANAGEMENT

A2007

2 Accelerated Credits

This class focuses on the advanced design necessary to work within the Carpentry and Construction field. Advanced architectural design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). This class will begin with AutoCAD and transition into Revit Architecture. Primary focus will be to design and develop drawings that are used in the construction industry. This class will be the capstone that pulls everything together from the conception to the final product. Students will be on an active work site and/or a co-op experience. Student will have the opportunity to test for NCEER Carpentry 2 Certification, AutoCad User Certification, and/or Revit User certification. Co-op/apprenticeship may be available to qualifying students. This course is designed to provide students with the opportunity to earn college credit.

ELECTRICAL CONSTRUCTION COMPLETER – 8 Credits

FOUNDATIONS OF BUILDING AND CONSTRUCTION

A2000

2 Credits

This course is designed to introduce basic construction safety. Students will gain introductory knowledge of hand tools used by all trades, and power tools, including pneumatic, hydraulic, and electric-powered tools. Basic job site communications are covered and the skills expected from employers. Students are exposed to an introduction to materials handling. Students will be instructed in wiring diagrams, schematics, and blueprint reading. In-depth coverage of electrical symbols and electrical drawings are included. Students will learn to use various types of electrical test equipment. Students will have the opportunity to test for NCCER Core Certification.

ELECTRICAL I: SAFETY TRAINING/ELECTRICAL THEORY

A2001

2 Credits

This course is designed to introduce basic construction safety. Students will gain introductory knowledge of hand tools used by all trades, and power tools, including pneumatic, hydraulic, and electric-powered tools. Basic job site communications are covered and the skills expected from employers. Students are exposed to an introduction to materials handling. Students will be instructed in wiring diagrams, schematics, and blueprint reading. In-depth coverage of electrical symbols and electrical drawings are included. Students will learn to use various types of electrical test equipment. Students will have the opportunity to test for NCCER Core Certification.

ELECTRICAL II: DEVICE BOXES, RACEWAYS, AND CONDUIT

A2002

2 Accelerated Credits

This course is designed to further a student's electrical knowledge, including device boxes, pull and junction boxes, conductors and cable, conductor installations, conductor terminations and splices, and electric lighting. Students begin learning about the different types of conduits, raceways, and cable trays. Different methods of bending conduit are explored to include hand bending and mechanical bending. Students have the opportunity to earn the first year of a four-year apprenticeship with the Associated Builders and Contractors Apprenticeship Program.

CO-OP/ON-SITE WORK EXPERIENCE

A2003

2 Accelerated Credits

As Seniors, students will have the opportunity to go to work for an Electrical Contractor through the Co-op program. Students remaining in class will have the opportunity to assist in the construction and wiring of a single-family home, including the installation of a solar array. Both opportunities are intended to give students real-world work experience in their chosen trade. Students must maintain at least a 70% in all classes while fulfilling all other school obligations in order to be, and stay, eligible for the co-op program.

COSMETOLOGY COMPLETER – 8 Credits

INTRODUCTION TO COSMETOLOGY

A2014

2 Credits

This course introduces students to the history and professional skills necessary to be successful in a career in cosmetology. Students will cover the sciences relative to the cosmetology industry, including infection control, anatomy, chemistry, and electricity, as well as the structures, disorders, and diseases of the integumentary system. Students are instructed in the art and science of cosmetology, as well as all aspects of the industry. Emphasis is placed on hygiene, safety, and sanitation as well as the state Board of Cosmetologists' rules and regulations.

COSMETOLOGY - THEORY AND APPLICATION

A2015

2 Credits

Students will be introduced to the fundamentals of hair design, including scalp care, haircutting, hairstyling, hair coloring, and chemical texture services. They will also practice nail care for cosmetology, including manicuring, pedicuring, and artificial nail enhancements. Students will have the opportunity to practice hands-on skills with a variety of opportunities. They will also be introduced to the fundamentals of applying cosmetology skills in a salon environment.

SALON ENVIRONMENT/PRACTICUM

A2016

8 Accelerated Credits

Students will have the opportunity to work in a real-life salon setting (Future Stars Salon) while using all the skills learned throughout their cosmetology course work. These skills include scalp care, haircutting, hairstyling, hair coloring, and chemical texture services, as well as nail care for cosmetology including manicuring, pedicuring, and artificial nail enhancements, makeup artistry, hair removal, skin care, and facial services. salon management, varying business models, employment options, and job requirements. Students will have the opportunity to review Maryland State Board of Cosmetology Laws and the opportunity to test for the Maryland State Board of Cosmetology Certification in both the practical and theory licensing exams.

CULINARY ARTS COMPLETER – 8 Credits

KITCHEN BASICS AND FUNDAMENTALS OF BAKING

A2010

2 Credits

The course is designed to introduce students to proper kitchen safety, safe food handling, kitchen equipment, and work flow in an industrial kitchen. Students will be safely introduced to knife skills and small wares. Students will watch demonstrations and also practice the fundamentals of baking, including cookies, quick breads, cakes, seasonal pastries, and decorating skills.

CULINARY BASICS AND SERVSAFE SANITATION CERTIFICATION

A2011

2 Credits

This course focuses on breakfast, learning about banquets, and preparing for the ServSafe Certification. The students will have the opportunity to season and flavor foods, and learn cooking fundamentals while exploring different methods. By the end of the course, students will prepare for and have the opportunity to test for ServSafe certification.

CULINARY APPLICATION, BAKING, AND PASTRY

A2012

2 Accelerated Credits

The course is designed to cover topics including baking terminology, tool and equipment use, formula conversion, and functions of ingredients. Students will also work to prepare a variety of menus, such as Farm-to-table, and garde manger. Students will create composed salads, dressings, and work on cold food presentation. Another focus is the development of baking skills through labs that include doughs, quick breads, tarts, and doughnuts.

CULINARY APPLICATION, CULINARY MANAGEMENT

A2013

2 Accelerated Credits

This course builds on the knowledge of the previous courses, and includes students making sandwiches, appetizers & Hors d'oeuvres, creating stocks, sauces, and soups. Student will continue with menu planning, nutrition and working in a live setting restaurant. Students will have the opportunity to earn the American Culinary Federation (ACF) Certified Fundamental Cook certification. Because this course is aligned with a college credit, students may have the opportunity to earn college credit.

FIRE AND RESCUE ACADEMY – 8 Credits

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.

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.

FIRE EMERGENCY MEDICAL TRAINING/HIGH SCHOOL CADET LEVEL I

A2070

2 Accelerated Credits and 2 Credits

Emergency Medical Technician: (Includes a Minimum of 165 Hours of Instruction and Related Work-Based Learning) This is the study of anatomy and physiology in a comprehensive examination of the knowledge, skills and abilities required to operate as a licensed Emergency Medical Technician in the State of Maryland. In addition to the classroom hours, the student is required to complete a significant volume of out of class (homework) assignments and assessments using the virtual classroom My Brady Lab and text reading assignments. My Brady Lab is a web-based course resource package that enhances and reinforces material from the course that is provided to students. It provides feedback to students so they can track their performance prior to the formalized testing included in this subject. This series of modules provide students with the necessary knowledge and skills to perform emergency medical care in a pre-hospital environment at the basic life support level.

FIRE EMERGENCY MEDICAL TRAINING/HIGH SCHOOL CADET LEVEL II

A2071

2 Accelerated Credits

Firefighter I: (Includes a Minimum of 108 Hours of Instruction and Related Work-Based Learning) This provides students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a firefighting team. The major topics covered are: the fire department organization, communications, incident command system, ropes and knots, fire behavior, safety, fire prevention, personal protective equipment, fire extinguishers, respiratory protection, ventilation, hose lines, forcible entry, search and rescue procedures, and ladder and sprinkler systems. Methods of instruction include lecture, discussion classroom exercises, audio/visual material, graded practical exercises, midterm and final examinations, series of practical examinations, and skills check off and homework assignments.

FIRE EMERGENCY MEDICAL TRAINING/HIGH SCHOOL CADET LEVEL III

A2072

2 Accelerated Credits

This series of subjects/topics must equate to two credits and satisfy the minimum hours listed per subject/topic. This is designated as the concentrator course and includes: Firefighter II, Rescue Technician – Site Operations, and Rescue Technician – Vehicle and Machinery Extrication. Students will gain a deeper understanding and application of the principles of fire behavior, building construction, water distribution systems, fixed fire protection systems, ventilation, water pressure and hose streams, fire prevention and Fire Fighter Professional qualifications. Students will also be provided with the knowledge and skills to perform site operations, victim management, maintenance of equipment, and the selection and use of specific ropes and rigging rescue skills. Site operations include identification of support resources required for specific rescue incidents, size up of a rescue incident, management of rescue incident hazards, management of resources in a rescue incident, conducting searches, performance of ground support for helicopter activities, and termination of a technical rescue operation.

ACADEMY OF BIOMEDICAL SCIENCES PLTW COMPLETER – 8 Credits

The Academy of Biomedical Sciences at Boyd J. Michael, III Technical High School(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 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 Boyd J. Michael, III 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

PRINCIPLES OF BIOMEDICAL SCIENCES

A2020

2 Credits

This course is designed as an introduction to the various areas of biomedical science and provides the scientific foundation necessary for success in subsequent Project Lead the Way (PLTW) Biomedical Science courses. The course is an exploration of biological concepts, including pathways of infection, genetics, and physiology is guided by the project-based approach. Students investigate the human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. Coursework is project-based and includes development of fundamental biotechnology laboratory skills, including gel electrophoresis, micropipetting, bacteria culturing, and aseptic technique.

HUMAN BODY SYSTEMS

A2021

2 Credits

This course is designed to explore human body systems and their interactions, including identity, power, movement, protection, and homeostasis. Student engage in scientific investigation as they build models of organs and tissues, analyze patterns in physiological systems and processes, and use data acquisition software to monitor body functions, such as muscle movement, reflex and voluntary action, and respiration. Students work through real world medical cases and assume the role of various biomedical professionals to solve medical mysteries. Coursework is project-based and includes development of biotechnology laboratory skills including use of selection and use of restriction enzymes, tissue and organ dissection, and the collection and analysis of vital signs and physiological data.

MEDICAL INTERVENTIONS

A2022

2 Accelerated Credits

This course is designed to study interventions involved in the prevention, diagnosis, and treatment of disease. Students are exposed to a wide range of scenarios and laboratory research related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Critical thinking and bioethical reasoning is used in the analysis of medical data, interpretation of the various physiological processes involved, and proposal of appropriate treatment protocols. Coursework is project-based and includes development of biotechnology laboratory skills including polymerase chain reactions, tissue pathology, enzyme-linked immunosorbent assay (ELISA), bacterial conjugation and transformation, and laparoscopic technique. Students prepare for an external assessment of developed biotechnology laboratory skills through the Biotechnician Assistant Credentialing Exam (BACE).

BIOMEDICAL INNOVATION

A2023

2 Accelerated Credits

This capstone course is designed for students to synthesize and apply learned content to design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. Students complete investigative missions that require them to propose and model innovations for solving real-world medical problems. The culmination of the work is an independent research project which addresses a particular medical problem and proposes a solution. Students are expected to present their research results to science researchers and representatives from the local healthcare and business communities.

ACADEMY OF HEALTH PROFESSIONS COMPLETER – 8 Credits

FOUNDATIONS IN MEDICINE AND HEALTH SCIENCE

A2024

2 Credits

This course is designed to provide students with an overview of the therapeutic, diagnostic, environmental, and informational systems in the healthcare industry. 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. It is recommended that students have completed biology and chemistry or be concurrently enrolled in chemistry. This course is required for the Academy of Health Professions.

STRUCTURE AND FUNCTIONS OF THE HUMAN BODY

A2025

2 Credits

This course builds on prior knowledge from Foundations in Medicine and Health Science. Students also study the structure and functions of the human body, including cellular biology and histology. Students will conduct laboratory investigations and fieldwork, use scientific methods during investigations to solve problems and make informed decisions. Case studies, based on actual events, will include genetics, immune system disorders, and the health and aging of the human body. Students will have real world experiences in preparation for their clinical experience during their senior year. This course is required for the Academy of Health Professions. It is recommended that students have completed biology and chemistry or be concurrently enrolled in chemistry.

CERTIFIED NURSING ASSISTANT

A2026

2 Accelerated Credits

This course is designed to provide students with the knowledge and skills necessary to perform basic care services for patients and residents in a variety of settings. Students will complete at least 40 hours of clinical experience. This course is designed to meet the curriculum requirements of the Maryland Board of Nursing (MBON). After successful completion of the written and practical Nursing Assistant Certification Exam, students will have the opportunity to apply for certification as a CNA through the MBON, as well as the Maryland Geriatric Nursing Assistant certification, First Aid, and CPR certifications. This course is required for the Academy of Health Professions.

CERTIFIED CLINICAL MEDICAL ASSISTANT

A2027

2 Accelerated Credits

This course is designed to prepare students with the knowledge and skills necessary to perform general, administrative, clinical and laboratory duties in various medical office settings. Skills such as electronic medical records, phlebotomy, electrocardiography and medication administration are included in this course. After successful completion of required components, students will have the opportunity to take the Certified Clinical Medical Assistant Certification exam through the National Healthcareer Association. This course is required for the Academy of Health Professions.

ACADEMY OF TEACHING PROFESSIONS COMPLETER – 8 Credits

HUMAN GROWTH AND DEVELOPMENT THROUGH ADOLESCENCE

A2047SM

2 Credits

This course is designed for students to learn about 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.

TEACHING AS A PROFESSION

A2048SM

2 Credits

This course is designed to allow students to focus 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 interests.

FOUNDATIONS OF CURRICULUM AND INSTRUCTION

A2049SM

2 Accelerated Credits

This course is designed to explore 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.

EDUCATION ACADEMY INTERNSHIP

A2034SM

2 Accelerated Credits

Education Academy Internship (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 may have the opportunity to test for the ParaPro and Praxis 1 exams. Because this course is aligned with a college credit, students may have the opportunity to earn college credit.

EARLY CHILDHOOD EDUCATION CHILD DEVELOPMENT ASSOCIATE (CDA) – 8 Credits

CHILD GROWTH AND DEVELOPMENT (BIRTH THROUGH ADOLESCENCE)

A2124SM Grade 11

2 Credits

This course focuses on child development birth through adolescence with emphasis on infant and toddler development or preschool development for the chosen pathway. Theories of development, the role of caregivers, family, health, safety and contemporary issues will be introduced. Students will explore special challenges to growth and development and will have opportunities for guided observation of children in a variety of settings. Students will begin to compile artifacts and written competency statements that are aligned with the required Child Development Associate (CDA) portfolio guidelines for infant and toddler care or preschool. Students will explore career pathways in Early Childhood Education and Child Care.

LEARNING ENVIRONMENT FOR PRESCHOOLERS

A2126SM Grade 11

2 Credits

This course focuses on learning environments for preschool care, as well as establishing positive, responsive, and cooperative relationships with families. Students will explore the relationship of health, nutrition, and safety to learning. Students will establish strategies to support a safe, healthy learning environment that provides appropriate mealtime experience and promotes good nutrition for preschool care while meeting best practice and regulated requirements for quality learning environments. Students will continue to explore physical and cognitive development and competencies for preschool care. The preschool classroom environment will support social and emotional development and provide opportunities for positive guidance. In addition, students will explore the local social service, health and education resources of the community and be able to recommend home activities to support preschool development. Students will observe, document, and assess preschool development and use multiple sources of evidence to set goals and develop lesson plans in response to the developmental needs of all children. Students will become familiar with local childcare regulations and adhere to professional mandated reporting requirements related to abuse and neglect. Students will develop components of a professional CDA Preschool portfolio.

CHILD DEVELOPMENT ASSOCIATE PORTFOLIO AND INTERNSHIP I

A2125SM Grade Level 12

2 Credits

Course Description: This course, Child Development Associate Portfolio and Internship 1 provides opportunities for students to complete the CDA Infants and Toddlers or Preschool professional portfolio and prepare for the CDA certification exam and site visit. During this course, future educators will have an opportunity to become directly involved with students in the teaching-learning process. Students will be required to obtain experiential learning hours in a licensed program serving the age group for the Child Development Associate that the student is working towards. Students will translate classroom observations into effective teaching and management practices.

CHILD DEVELOPMENT ASSOCIATE PORTFOLIO AND INTERNSHIP DUAL ENROLLMENT

A2127SM Grade Level 12

2 Credits

Students will participate in a credit-bearing college course through dual or concurrent enrollment. Upon approval by school administrators, students will have the option of enrolling in a postsecondary early childhood education course. The course must be content specific to early care and education and must meet a requirement towards an Associates in Early Childhood Education. The course may not be a course that students receive credit for prior learning such as through the attainment of the Child Development Associate (CDA) or any general education courses/requirements. Additionally, students will be required to develop a report and presentation summarizing the knowledge and experience gained through taking the college course. If a research paper is a requirement of the college course, this paper can be presented and defended to a panel of industry representatives.

HOMELAND SECURITY TECHNOLOGIES COMPLETER – 8 Credits

INTRODUCTION TO HOMELAND SECURITY (Dual Credit)

A2039

1 Credit

This course introduces students to the fields of Homeland Security, Cybersecurity and Emergency Management. The foundations course introduces and covers the organization, framework, and roles of the federal, state, and local governments, the phases of emergency management, and terrorism. Additionally, students are expected to learn the latest computer attacks and countermeasures. Students may be eligible for college credits for this course.

INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS

A2040

1 Credit

This course introduces students to Geographic Information System (GIS) and geospatial technology. Students will develop an understanding of the fundamental concepts and applications of GIS, spatial data, and GIS software packages, including ESRI's ArcGIS Desktop Suite. Core cyber security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered. Crucial issues from industrial espionage to cyberbullying are discussed. Students may be eligible for college credits for this course.

ADVANCED GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING

A2041

1 Accelerated Credit

This course is designed to provide students with advanced Geospatial Information Systems (GIS) experience and familiarity with geospatial concepts and tools. Students will learn the skills for map development and cartographic design; perform spatial and statistical analyses; identify geodatabase concepts; participate in 3-dimensional data and visualization; develop an understanding of geoprocessing tools and models. Students will have the opportunity to test for the ESRI ArcGIS Desktop entry exam certification. Students will also be exposed to Computer Forensics, which is an introduction to electronic evidence, including legal, technical, investigative, intrusive attacks and ethical issues relating to GIS and safety. Students may be eligible for college credits for this course.

COMPUTER FORENSICS (Dual Credit)

A2148/A2148SM

1 Credit

Computer Forensics I is an introductory course in electronic evidence; what types exist, where it may be found and the methods to investigate it. Discussions include legal, technical, investigative, intrusive attacks and ethical issues. First course in the fundamentals of information, computer and network security.

INTRODUCTION TO CYBERSECURITY (Dual Credit)

A2149/A2149SM

1 Credit

Introduction to Cybersecurity is a beginning guide for anyone interested in computer security. Core security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered. Crucial issues from industrial espionage to cyberbullying are discussed. Additionally, students are expected to learn the latest computer attacks and counter measures.

CAPSTONE EXPERIENCE

A2042

2 Accelerated Credits

The Capstone Experience is the culminating course for 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, Criminal Justice/Law Enforcement, or Information/Communications Technology. Emergency Communications is an essential part of this program and consists of a series of units produced by the National Academies of Emergency Dispatch leading to certifications in Emergency Telecommunications. Students will have the option of completing an industry-mentored project or enrolling in a post-secondary course. Students will be expected to create a portfolio, during which they will produce writings, conduct interviews, and deliver presentations.

HOMELAND SECURITY – LAW ENFORCEMENT – 8 Credits

INTRODUCTION TO CRIMINAL JUSTICE

A2035

2 Credits

Physical training is a major part of this program, and consists of group and personal workouts with the goal of personal improvement. Students will take the Cooper Test every marking period. Instructors from DPSCS SOG Team (Special Ops Group) instruct students throughout, and students can earn a Level I & II Ground Combative Certification, if enough hours are obtained and the skill level is obtained. This course provides an overview of the American criminal justice system, including theories of justice, criminal law, policing, courts and the associated pre and post-trial legal processes, punishment and corrections, and juvenile justice. Students will study Emergency Communications consists of a series of courses produced by the National Academies of Emergency Dispatch. The first course, Emergency Telecommunicator, is designed to train students unfamiliar with emergency communication centers, emergency telecommunication technology, interpersonal communication, legal issues, and job stress factors. Students are also exposed to fingerprinting, lifting latent prints, crime scene photography, crime scene sketches, logs, evidence collection, interviewing, traffic stops and direction, drill, traffic direction, radio procedures, ethics in policing, use of force, handcuffing, officer safety, patrol procedures, making an arrest, report writing and searches. Because this course is aligned with a Hagerstown Community College course, college credit may be available.

CORRECTIONS IN AMERICA (Dual Credit)

A2036

2 Accelerated Credits

This course focuses on the current issues facing corrections in contemporary American society. In this course, students will critically examine the various theories underlying in corrections and correctional policy. Students also examine the history of corrections in the United States, and study several current issues facing corrections: racial/economic inequality and mass incarceration; prison violence, treatment, and rehabilitation; women in prison; punitive sentencing; juveniles, the elderly, and the mentally ill in prison; and prisoner reentry and recidivism. Because this course is aligned with a Hagerstown Community College course, college credit may be available.

INTRODUCTION TO HOMELAND SECURITY (Dual Credit)

A2037

2 Accelerated Credits

This course presents a framework for understanding the role of government and the private sector in protecting the homeland from terrorist attack. This course examines terrorism from a historical and global perspective, discusses specific strategies, operations and tactics that can be used to prevent and protect against future attacks. This is a dual-enrollment course delivered in partnership with Hagerstown Community College.

CRIMINAL JUSTICE CAPSTONE AND INTERNSHIPS

A2038

2 Accelerated Credits

Students will be expected to produce writings, conduct interviews, and deliver presentations. This is a step-by-step process designed to be a culmination of a student's two years in the program. Students can intern at many law enforcement agencies around the county where they apply academic and technical skills to real-life applications in order to develop employability. Various Law Enforcement Agencies around the County assist in completing these tasks.

ARTIFICIAL INTELLIGENCE (AI) AND CLOUD COMPUTING COMPLETER – 8 Credits

INTRODUCTION TO ARTIFICIAL INTELLIGENCE DEVICES AND CLOUD COMPUTING

A1095

2 Credits

This course is an introduction to the basic Internet of Things (IoT) Intelligent devices and programming these remote or sensory devices with Python. Students will look at the interconnectedness of the IoT and spend time understanding the field of both AI and Cloud Computing, which will allow students to gain a certification in Cisco PCAP, in Python.

IMPLEMENTING ARTIFICIAL INTELLIGENCE DEVICES AND CLOUD BASED TECHNOLOGY

A1096

2 Credits

This class will expand the scope and understanding of the IoT while also having students explore both the cloud and network security concepts. The course will focus on an Introduction to Cybersecurity, and also expand a student's understanding of the IoT Fundamentals (Connecting Things), which will allow students to gain a certification in Cisco IoT.

SECURING ARTIFICIAL INTELLIGENCE DEVICES AND CLOUD BASED TECHNOLOGY

A1097

2 Accelerated Credits

This class will focus on the implementation of security concepts to AI devices and allow students to practice hardening an enterprise network. Through a look at both Cybersecurity Essentials, and IoT Security, students will expand the skills gathered in the first 2 courses which will allow students to gain a certification in Cisco CompTIA Cloud.

OPTIMIZING ARTIFICIAL INTELLIGENCE DEVICES AND CLOUD BASED TECHNOLOGY

A1098

2 Accelerated Credits

This class focuses on the understanding of data analytics and creating more complex functionality of sensory devices. Through the exploration of the IoT Fundamentals of both Big Data and Analytics, and Hackathon Playbook, students will work to create a Capstone Project, which will allow students to gain a certification in Cisco Networking Technologies.

CISCO IT ACADEMY COMPLETER – 8 Credits

IT ESSENTIALS (Computer Repair)

A1090

2 Credits

This course is designed to give students an entry level understanding of the essentials of IT. Students will have the opportunity to work on Cisco's Networking Academy's advanced simulation tools in order to have multiple hands-on labs. These experiences will allow students to hone troubleshooting skills and build a strong foundation in Information Technology. Students may have the opportunity to test for CompTIA A+ Certification.

LINUX ESSENTIALS

A1092

2 Credits

This course is designed to give students knowledge of the Linux systems. Students will explore the intricacies of the operating systems embedded in almost every supercomputer, and have the opportunity for hands on experiences with Linux systems. NDG Linux Essentials quickly builds the Linux knowledge. Students may have the opportunity to test for the LPI Linux Essentials Professional Development Certificate (PDC).

NETWORKING I

A1091

2 Accelerated Credits

This course is designed to allow students 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.

ROUTING, SWITCHING AND CYBER SECURITY

A1093

2 Accelerated Credits

This course is designed to allow students to delve further into the world of networking. Students will have the opportunity to gain practical and usable skills, such as configuring a router and a switch to enable the functionality of a network. Students will also gain knowledge on what it takes to work with LANs, WANs and other network designs. Students may have the opportunity to test for the Cisco CCENT Certification or the Cisco CCNA R&S Certification.

MECHANICAL, MANUFACTURING & AUTOMATION ENGINEERING ACADEMY COMPLETER – 8 Credits

SMART MANUFACTURING AND QUALITY CONTROL

A2050

2 Credits

This course introduces students to entry-level operations and assembly of modern production environments that use Industry 4.0 automation technologies, factory floor automation equipment and processes. Included in this foundations class are basic safety, hand tools, concepts & terminology of SMART Manufacturing, reading blueprints, and schematic reading. In preparation for the application of manufacturing theory, students will study precision measurement, basic setup, adjustment and operation of manual and automated machines, combined with basic robot operation and terminology. The class will explore how electric, pneumatics, and sensor systems are essential to manufacturing. This is basic preparation to demonstrate the manufacturing side of industry and how to monitor production via HMI, Internet, Ethernet, and Smartphones. Students may have the opportunity to test for both CPT and CPT+ certifications.

ADVANCED OPERATIONS PROGRAMMING

A2051

2 Credits

This course introduces students to modern production environments that use Industry 4.0 automation technologies, factory floor automation and programming. These automated technology systems include SMART Manufacturing System Metrics, computer controlled machines, Ethernet Network Operations Mechatronic Systems Programming, Mechanical systems, Hydraulic Systems Programmable Controller, HMI Interface, robotics, CNC Programming, and the set-up and operation of these systems in the production and manufacturing of an industry product.

ROBOTIC SYSTEMS AND INDUSTRY 4.0 APPLICATIONS

A2052

2 Accelerated Credits

This course teaches students robotic systems operation which include concepts and terminology of robots, robot setup and adjustment, robot operations & basic programming, and robot fixtures/end of arm tooling types & selection. This course integrates the robotic side of manufacturing by using robot smart manufacturing concepts, robot-Ethernet network communications, Robot I/O Device & PLC System Interfacing, and Robot Monitoring & Cycle Time Optimization.

DATA ANALYTICS; ADVANCED TURNING AND MILLING

A2053

2 Accelerated Credits

This course exposes students to manufacturing concepts including: the Concepts of Industrial Internet of Things (IIoT), PLC Ethernet Messaging Communications, PLC Ethernet Messaging Communications, and Operation Barcode & RFID Programming. Manufacturing and production will be monitored using Smart Sensor Programming & Operation, Managed Ethernet Switch Configuration & Operation, Variable Frequency Drive Programming, SQL Database Systems, Data Analytics & Manufacturing Execution Systems (MES), and Lean Manufacturing & System Optimization. Students will be able to successfully machine parts by operating a computer numerical control (CNC) machine; maintaining quality and safety standards; keeping records; maintaining equipment and supplies; and perform routine preventative maintenance. Students have the opportunity to earn NIMS (National Institute for Metalworking Skills) Machining Level I certification.

ENGINEERING ACADEMY PLTW – 8 Credits

INTRODUCTION TO ENGINEERING DESIGN (IED)

A2054

2 Credits

This course is designed to introduce the computer software used to produce, analyze and evaluate models of projects solutions within. Students study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. Students will also be able to apply the design process to solve various problems in a team setting and explore career opportunities in design engineering and understand what skills and education these jobs require.

CIVIL ENGINEERING AND ARCHITECTURE (CEA)

A2056

2 Accelerated Credits

This course provides an overview and understanding of the history, influence, and impact in the fields of Civil Engineering and Architecture, while allowing students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. Students will often work in teams to apply various Engineering concepts (Site Discovery, Regulations, and a Generic Viability Analysis). Students will also understand the basics of structural engineering, and prepare presentations and have peer reviews of team and individual work. I put a strikethrough and highlighted them.

ENGINEERING DESIGN AND DEVELOPMENT (EDD)

A2057

2 Accelerated Credits

This capstone course enables students to apply what they have learned in academic and pre-engineering courses as they complete challenging, self-directed projects. Students work in teams to design and build solutions to authentic engineering problems, while having an engineer from the school's partnership team mentor each student team. Student teams work to report progress to their peers, mentor and instructor and exchange constructive criticism and consultation. At the end of the course, teams present their research paper and defend their projects to a panel of engineers, business leaders and engineering college educators for professional review and feedback. This course equips students with the skills that they will need in postsecondary education and careers in Engineering and Engineering technology.

PRINCIPLES OF ENGINEERING

A2110 Grade Level 11, 12

2 Credits

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.

AUTOMOTIVE TECHNOLOGY COMPLETER – 8 CREDITS

ELECTRICAL/ELECTRONICS AND HVAC

A2060

2 Credits

This course is an introduction to safety practices in Automotive Technology, and introduces students to several units of study. Through a combination of classroom instruction and hands-on experience in a lab setting, students will explore steering and suspension technology, electronics and vehicle computer systems, brakes and braking technology, and safety and navigation systems. Students will be taught the function and application of an engine coolant and describe the uses of the scan equipment in communicating with body HVAC computers. Students will have the opportunity to test for several ASE certifications.

SUSPENSION, STEERING AND BRAKES

A2061

2 Credits

This course allows for students to have an in depth exploration of advanced steering and suspension systems technology, diagnosis and repair, in addition to advanced electronic diagnosis and final preparation for remaining ASE certifications. Students will have the opportunity to test for various ASE certifications.

POWERTRAIN ENGINE REPAIR AND PERFORMANCE

A2062

2 Accelerated Credits

This course is designed to teach the principles of automotive engine operation and ASE MLR level service. It also covers general engine design and operation, cylinder head/valve train, cylinder block, lubrication, and cooling systems, in addition to automatic and manual transmissions. Coursework will further cover the operation, diagnosis, and service of drive shafts, constant velocity (CV) joints, four-wheel-drive bearings, differentials and four-wheel-drive systems. The student is taught to verify customer concerns, proper operation, and perform tests. Students will have the opportunity to test for various ASE certifications.

AUTOMOTIVE TECHNOLOGY CAPSTONE

A2063

2 Accelerated Credits

The Capstone Experience is the culminating course for the Automotive Technology Pathway. This course is designed to provide students with the opportunity to extend and apply their classroom learning in the career areas of Automotive Technology. Students will have the option of completing an industry-mentored project or internship/apprenticeship. 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 have the opportunity to compile industry related certifications in the field of Automotive Technology to include in their resume.

COLLISION REPAIR COMPLETER – 8 Credits

NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR

A2064

2 Credits

This course will help students develop diagnostic, technical and academic skills through classroom instruction and hands-on non-structural analysis and damage repair applications. This course will address an introduction to welding; personal and environmental safety practices associated with clothing; respiratory protection, eye protection; entry level automotive service technology principles and practices; hand tools; power tools/equipment; proper ventilation; and the handling, storage, measuring and mixing procedures, raising and supporting vehicles, damage report principles and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations. Students will also use I-CAR Live Curriculum and ASETask List mastery to learn to formulate accurate estimates of cost of repairs.

PAINTING AND REFINISHING

A2065

2 Credits

This course allows students to develop diagnostic, technical and academic skills through their participation in classroom instruction and hands-on applications in the areas of surface preparation; paint mixing, matching, application and paint equipment preparation; identification and correction of defects; final detailing and the ability to identify and perform other necessary Painting and Refinishing tasks. Students may have the opportunity to test for ASE Painting and Refinishing Certification.

STRUCTURAL ANALYSIS AND DAMAGE REPAIR

A2066

2 Accelerated Credits

This course allows students to develop diagnostic, technical and academic skills through classroom instruction and hands-on structural analysis and damage repair applications. The course emphasizes the proper procedures for measuring; analyzing and developing correct repair procedures for unibody and body-over-frame vehicles. Student technicians develop repair plans and discuss their implementation. The course also emphasizes the restoring of vehicles to their pre-accident condition using manufacturers' and industry recommendations. This course equips the student with the knowledge, skills and abilities necessary for immediate employment in the Transportation Equipment Pathway and/or continuing postsecondary education. Students will have the opportunity to test for ASE Structural Analysis and Damage Repair Certification.

MECHANICAL AND ELECTRICAL COMPONENTS

A2067

2 Accelerated Credits

This course allows the students to use the I-CAR Live Curriculum to develop diagnostic, technical and academic skills. The focus is in the areas of steering and suspension; electrical, brakes, heating and air conditioning; cooling systems; drive train; fuel intake and exhaust systems; restraint systems and the ability to identify and perform other necessary Mechanical and Electrical tasks. Students will have the opportunity to test for the ASE Mechanical and Electrical Components Certification.

DIESEL TECHNOLOGY COMPLETER – 8 Credits

DIESEL SUSPENSION & STEERING, AND BRAKES

A2120SM Grade 11

2 Credits

This course provides the student with the knowledge and skills necessary to pass the ASE Medium/Heavy Truck Technician Exams for Suspension & Steering, and Brakes., and Preventive Maintenance and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical, and academic skills through classroom instruction and hands-on maintenance applications in the above areas. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary repair tasks utilizing the latest techniques and applications on Class 4 through Class 8 trucks and tractors. In addition, this course will address personal and environmental safety practices associated with clothing; respiratory protection; eye protection; entry level medium/heavy truck service technology principles and practices; hand tools; power tools/equipment; raising and supporting vehicles, safety principles and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

ELECTRICAL/ELECTRONIC SYSTEMS

A2121SM Grade 11

2 Credits

This course provides the student with the knowledge and skills necessary to pass the ASE Medium/Heavy Truck Technician Exams for Electrical/Electronic Systems and immediately enter a career in this area and/or attend post-secondary education and/or training. Students develop diagnostic, technical, and academic skills through classroom instruction and hands-on maintenance applications in the above areas. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary repair tasks utilizing the latest techniques and applications on Class 4 through Class 8 trucks and tractors.

DIESEL TECHNOLOGY AND PREVENTATIVE MAINTENANCE

A2122SM Grade 12

2 Accelerated Credits

This course provides the student with the knowledge and skills necessary to pass the ASE Medium/Heavy Truck Technician Exams for Diesel Engines and to perform Preventative Maintenance and immediately enter a career in this area and/or attend post-secondary education and/or training. Students develop diagnostic, technical, and academic skills through classroom instruction and hands-on maintenance applications in the above areas. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary repair tasks utilizing the latest techniques and applications on Class 4 through Class 8 trucks and tractors.

Elective

DIESEL TECHNOLOGY PATHWAY

A2123SM Grade 12

2 Elective Credits

The Capstone Experience is the culminating course for the Diesel Technology Pathway. This course is designed to provide students with the opportunity to extend and apply their classroom learning in the career areas of Diesel Technology. Students will have the option of completing an industry-mentored project or internship/apprenticeship. 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 have the opportunity to compile industry related certifications in the field of Diesel Technology to include in their resume.

ADDITIONAL CAREER AND TECHNOLOGY EDUCATION ELECTIVES

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.

ADVANCED TECHNICAL RESEARCH

A1052 Grade Level 12

1 Elective Credit

Advanced Technical Research students pursue an individualized course of study in the pertinent content area of their completed program at Boyd J. Michael, III Technical High School (WCTHS). Each student is assigned to a teacher in their related area of content for one period and works with that teacher in meeting individual career preparatory goals and course objectives. Available only at WCTHS.

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, and CSHS.

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.

DIGITAL SOCIETY

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.

INTRODUCTION TO COMMERCIAL DRIVING AND VEHICLE TRANSPORTATION

A2111 Grade Level 12

1 Elective Credit

The Introduction to Commercial Driving course prepares students for entry into the trucking and logistics industry. Students explore career and employment opportunities and requirements of a professional tractor trailer driver, including developing familiarity with basic state and federal motor vehicle traffic laws, regulations, and their application in the industry. This year long course consists of classroom instruction, demonstrations, hands-on exercises, simulator experience, field trips and guest speakers. Students have the opportunity to acquire credits from Hagerstown Community College for completion of the course of studies and will be prepared to apply for the Commercial Learner's Permit (CLP) written exam.

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.

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.

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).

Prerequisite: Foundations of Environmental/Agricultural Science

WORK BASED LEARNING EXPERIENCE

A1044 Grade Level 12

1 Elective Credit

Work Based Learning Experience students may earn one credit for their work experience at a business in their related content area. The work experience in a business setting is an extension of the classroom program and provides students with on-the-job experience. The business must be pre-approved by the program coordinator. An agreement detailing the work based learning 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 work. Available only at WCTHS.

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.

HONORS 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 course 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, BISFA, CSHS, HHS, NHHS, SHHS, and SHS.

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/A870SM 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.

SPECIAL EDUCATION

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

INTERNATIONAL BACCALAUREATE CAREER-RELATED PROGRAM (IBCP)

(Offered at North Hagerstown High School)

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

PEER HELPER

A018 Grade Level 11, 12

1 Elective Credit

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, show students how to access the available career information, provide 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.

STUDY HALL

A030 Grade Level 9, 10, 11, 12

Non-Credit

Study Hall is designed to provide students with time to complete additional assignments.

PEER TUTOR

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.

ADVANCED STUDY SKILLS

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.

COLLEGE PREPARATION

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.

AVID I

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.

AVID II

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 year long 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.

INSTRUCTIONAL HELP

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.

ACADEMIC SKILLS AND CONCEPTS

A046 Grade Level 10, 11, 12

1 Elective Credit

Academic Skills and Concepts courses are intended to improve a student's capability to manage school tasks and improve academic performance. Instruction and support in specific academic, social, and/or self-management skills may be provided. Areas of focus include: pre-teaching, re-teaching and individualized academic intervention, study skills, organizational tasks, long-range planning for projects, test-taking skills, and self-advocacy.

AVID TUTOR

A049 Grade Level 10, 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.

FAMILY SKILLS I

A065/A065SM Grade Level 9, 10, 11, 12

1 Elective Credit

SCED Description - Formerly known as Family Living, Family and Interpersonal Relationships courses emphasize building and maintaining healthy interpersonal relationships among family members and other members of society. These courses often emphasize (but are not limited to) topics such as the responsibilities of a family and wage earner, balancing a career and personal life, human sexuality and reproduction, marriage preparation, parenthood and the function of the family unit, the family life cycle, and life stages. They also cover topics related to stages of growth and social/dating practices.

FAMILY SKILLS II

A066/A066SM Grade Level 9, 10, 11, 12

1 Elective Credit

SCED Description - Formerly known as Family Living, Family and Interpersonal Relationships courses emphasize building and maintaining healthy interpersonal relationships among family members and other members of society. These courses often emphasize (but are not limited to) topics such as the responsibilities of a family and wage earner, balancing a career and personal life, human sexuality and reproduction, marriage preparation, parenthood and the function of the family unit, the family life cycle, and life stages. They also cover topics related to stages of growth and social/dating practices.

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 intended to improve a student's vocabulary, critical thinking, reading rate, and/or comprehension level through targeted intensive specially-designed or intentionally-designed instruction. Each student who requires this level of instruction is assessed through a variety of measures to determine specific needs and a plan is developed and implemented by the instructional team to meet those needs. This can be addressed through a customized learning plan and/or a structured intervention program. For students with disabilities in the area of reading, reading intervention will specifically target the goals that have been developed to address the identified disability-related area(s) of need. This course must be in addition to a student's grade-level, core English course.

LITERACY ACCELERATION

A100R Grade Level 9, 10, 11, 12

1 Elective Credit

Literacy is a course for students who require more targeted literacy instruction to access the high school English curriculum and grade level texts. Students in this class read high-interest and complex texts that are at grade level for sustained periods. Students also receive small-group targeted instruction based on periodic assessments of their specific literacy gaps. This course must be in addition to a student's grade-level, core English course.

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

Math Intervention is intended to improve a student's conceptual and procedural understanding of critical mathematics concepts from prior grades or courses and problem solving skills that support WCPS transfer goals through targeted, intensive, specially-designed or intentionally-designed instruction. 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. This course must be in addition to a student's grade-level, core mathematics course (e.g. Algebra I or Geometry).

MATH SUPPORT

A192SM Grade Level 9, 10, 11, 12

1 Elective Credit

The Math Support course is a semester-long mathematics course designed to hone skills developed in Algebra I, Geometry, and/or Algebra II. Students will review and build upon priority algebra or geometry concepts for success in the next course. This course is graded as Pass/Fail.

Prerequisite: Must have failed a previous course MCAP exam.

INTRODUCTION TO ENGINEERING DESIGN

A855 Grade Level 10, 11, 12

1 Elective 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.

ADVANCED FLORAL DESIGN

A1071

1 Elective Credit

Advanced Floral Design teaches students basic elements and principles of design while familiarizing them with the material and tools of floral design. Professionally designed floral designs, arrangements or artwork incorporate the elements of floral design: line, form, space, texture, and color, and the principles of floral design: balance, proportion, rhythm, contrast, harmony, and unity. Proper use of the color wheel will be taught and used to select color schemes for construction of basic geometric arrangements, corsages, and boutonnieres. Students will learn to identify and care for flowers, while learning to select quality materials in design, construction, and marketing of floral products.

MARYLAND STATE CERTIFICATE PROGRAM

DESCRIPTION AND REQUIREMENTS OF THE CERTIFICATE PROGRAM

The decision to award a student with disabilities a Maryland High School Certificate of Program Achievement Completion will not be made until after the beginning of the student's last year in high school. unless the student is participating in the alternative Maryland School Assessment Program Participation in the alternate assessments and alternate instruction, however, will not prepare a student to meet Maryland's High School Diploma requirements. Therefore, students who participate in the alternate instruction and assessments over a continued period of time will be progressing toward a Maryland High School Certificate of Program Completion. The Maryland High School Certificate of Program Achievement Completion shall be awarded only to students with disabilities who cannot meet the requirements for a diploma.

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]

If a student retakes the same class they already have credit for or for a student who is participating in the Multi-State Alternative Assessment when enrolled in a class aligned with the Maryland College Career-Ready Standards.

- a. Student will not receive a grade %, passing or failing marks.
- b. Student will receive a narrative description of the progress made for each class they are enrolled by the assigned teacher.

COURSE DESCRIPTIONS

ESSENTIALS OF ENGLISH

A741	Grade Level 9	Non-credit
A742	Grade Level 10	Non-credit
A743	Grade Level 11	Non-credit
A744	Grade Level 12	Non-credit

This course is individually structured to improve each student's listening, speaking, reading, and writing skills. Instruction considers the learning style of each student and addresses the goals and objectives in the student's IEP. The instructional standards are aligned with the Maryland College and Career Ready Standards (MCCRS), however, do not cover the breadth and the depth of the general education curriculum.

ESSENTIALS OF SOCIAL STUDIES

A745	Grade Level 9	Non-credit
A746	Grade Level 10	Non-credit
A747	Grade Level 11	Non-credit
A748	Grade Level 12	Non-credit

This course is individually structured to improve each student's vocational skills, real-world learning skills, social communication, adaptive behavior skills, and home and community safety. Students study the human experience of different cultural groups in various settings and at different times in history to gain insight into the human experience. The instructional standards are aligned with the Maryland College and Career Ready Standards (MCCRS), however, do not cover the breadth and the depth of the general education curriculum.

ESSENTIALS OF MATHEMATICS

A749	Grade Level 9	Non-credit
A750	Grade Level 10	Non-credit
A751	Grade Level 11	Non-credit
A752	Grade Level 12	Non-credit

This course is individually structured to provide a real-world learning application approach to understanding mathematical concepts. Core concepts in counting, cardinality, base ten numbers and operations, geometry, ratios, and the math practices associated with problem-solving are a focus of instruction. The instructional standards are aligned with the Maryland College and Career Ready Standards, however, do not cover the breadth and the depth of the general education curriculum.

ESSENTIALS OF SCIENCE

A753	Grade Level 9	Non-credit
A754	Grade Level 10	Non-credit
A755	Grade Level 11	Non-credit
A756	Grade Level 12	Non-credit

This course is individually structured to build on foundational knowledge from the mathematics and English/language arts content areas. Instruction is clustered into domains or themes that include Physical, Life, and Earth and Space Science. The instructional standards are aligned with the Next Generation Science Standards but do not represent the breadth and the depth covered by the general education curriculum.

LIFE SKILLS

A765	Grade Level 9, 10, 11, 12	Non-credit
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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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Engineering Design and Development (EDD)	A2057	105
English 10	A104	19
English 11	A106	19
English 12	A108	20
English 9	A102	19
English Composition 101	A1089SM	19
English Technical Writing 112	A188SM	20
Environmental Science Issues	A2101SM	86
Essentials of English	A741-744	118
Essentials of Math	A749-752	118
Essentials of Science	A753-756	119
Essentials of Social Studies	A745-748	118
Extended EL	A187	25
Family Skills I	A065	115
Family Skills II	A066	115
Financial Literacy	A839	38
Fire Emergency Medical Training/High School Cadet Level I	A2070	98
Fire Emergency Medical Training/High School Cadet Level II	A2071	99
Fire Emergency Medical Training/High School Cadet Level III	A2072	99
Fish/Wildlife	A909	86
Forensic Science	A415/A415SM	44
Forestry, Soils, and the Environment	A1015	88
Forestry/Soils	A920	87
Foundations in Medicine and Health Science	A2024	100
Foundations of Building and Construction	A2000	97
Foundations of Building and Construction Technology (CORE)	A908	81
Foundations of Curriculum and Instruction	A443, A2049SM	89, 101
Foundations of Homeland Security and Emergency Preparedness	A1024	88
Foundations of Sports Medicine and Health Science	A2105SM	89
Foundations of Technology	A870	110
French I	A502	51
French II	A504	51
Geometry	A322	37
German I	A512	51
German II	A514	51
Greenhouse	A1002	84
Guitar Lab I	A662	61
Guitar Lab II	A664	61
Health Education and Financial Literacy	A2131	68
History of the Theatre THR 114	A2134SM	60
Homeland Security I	A1025	88
Homeland Security II-Research Methods and Applications	A1026	88
Honors Accounting and Finance II	A781H	76
Honors Advanced Chorus	A657H	63
Honors Algebra I	A312H	37
Honors Algebra II	A332H	38
Honors Art III	A606H	56
Honors Art IV	A608H	56
Honors Band – Advanced	A651H	64
Honors Biology	A409H	43

Honors Chamber Choir/Ensemble	A690H	64
Honors Chemistry	A411H	43
Honors Dance III	A694H	59
Honors Dance IV	A695H	59
Honors Drama III	A643H	60
Honors Drama IV	A644H	60
Honors Drama V	A645H	60
Honors Earth and Space Science	A413H	43
Honors Economics	A230H	29
Honors English 10	A104H	19
Honors English 9	A102H	19
Honors Foundations of Computer Science	A350H	91, 109
Honors French Independent Study	A511H	53
Honors French-I	A502H	51
Honors French-II	A504H	51
Honors French-III	A506H	51
Honors French-IV	A507	51
Honors Geometry	A322H	37
Honors German Independent Study	A519H	53
Honors German-I	A512H	51
Honors German-II	A514H	51
Honors German-III	A516H	51
Honors German-IV	A517	51
Honors Guitar Lab III	A666H	61
Honors Italian I	A572H	51
Honors Japanese Independent Study	A560H	53
Honors Japanese-I	A552H	51
Honors Japanese-II	A554H	51
Honors Japanese-III	A556H	51
Honors Japanese-IV	A557	51
Honors Jazz Ensemble	A667H	65
Honors Latin I	A522H	51
Honors Latin II	A524H	51
Honors Latin III	A526H	51
Honors Latin Independent Study	A531H	53
Honors Latin IV	A523	51
Honors Local, State, and National Government	A206H	29
Honors Media Literacy	A193HSM	30
Honors Music Studio Practice	A688H	62
Honors Musical Theatre/Pit Ensemble	A679H	60
Honors Philosophy	A292HSM	30
Honors Physics	A419H	43
Honors Piano Lab III	A685H	62
Honors Psychology	A215HSM	30
Honors Show Choir	A687H	64
Honors Sociology	A217HSM	30
Honors Spanish I	A532H	51
Honors Spanish II	A534H	51
Honors Spanish III	A536H	51
Honors Spanish Independent Study	A541H	53
Honors Spanish IV	A537	51
Honors Studio Practice Art	A619HSM	57
Honors Symphonic Orchestra	A680H	65

Honors Treble Ensemble	A673H	63
Honors U.S. Civil War	A238HSM	30
Honors United States Studies II	A204H	29
Honors Vocal Jazz Ensemble	A676H	63
Honors World History	A208H	29
Horticulture Science	A922	84
Hospitality and Tourism Internship	A1042/A1042SM	83
Hospitality and Tourism Management	A1041/A1041SM	83
Human Body Systems	A2021	99
Human Growth and Development through Adolescence	A441, A2047SM	89, 100
IB Biology (Part 1) (HL, SL)	A421IB	45
IB Biology (Part 2) (HL, SL)	A422IB	45
IB Chemistry (Part 1) (SL)	A423IB/A423IBSM	46
IB Chemistry (Part 2) (SL)	A424IB	46
IB Computer Science (SL)	A357IB	91
IB Core	A297IB	33
IB English (Part 1) (HL)	A106IB	21
IB English (Part 1) (SL)	A107IB	21
IB English (Part 2) (HL)	A108IB	21
IB English (Part 2) (SL)	A109IB	21
IB Environmental Systems and Societies (SL)	A555IB	47
IB French (HL)	A5221IB	53
IB French (Part 1) (SL)	A505/A505SM	53
IB French (Part 2) (SL)	A511IB	53
IB German (HL)	A520IB	53
IB German (Part 1) (SL)	A518/A518SM	53
IB German (Part 2) (SL)	A519IB	53
IB Mathematics: Analysis and Approaches HL (Part 1)	A343IB	40
IB Mathematics: Analysis and Approaches HL (Part2)	A344IB	40
IB Mathematics: Analysis and Approaches SL	A340IB	40
IB Mathematics: Applications and Interpretation SL	A337IB	40
IB Music (Part I)	A691IB	62
IB Music (Part II)	A692IB	63
IB Philosophy HL	A293IB	33
IB Philosophy SL	A292IB	32
IB Physics (Part 1) (SL)	A429IB	45
IB Physics (Part 2) (SL)	A430IB	46
IB Physics Higher Level (HL)	A431IB	46
IB Programme Enrichment	A048IB	116
IB Psychology (SL)	A284IB	32
IB Spanish (HL)	A560IB	53
IB Spanish (Part 1) (SL)	A541/A541SM	53
IB Spanish (Part 2) (SL)	A541IB	53
IB Sports, Exercise, and Health Science (SL)	A713IB	46
IB Visual Arts (Part 1) (HL, SL)	A633IB	58
IB Visual Arts (Part 2) (HL)	A634IB	59
IB World History HL (Part 1)	A290IB	32
IB World History HL (Part 2)	A2291IB	32
IBCP Personal and Professional Skills I	A295IB	111
IBCP Personal and Professional Skills II	A296IB	111
Implementing Artificial Intelligence Devices and Cloud Based Technology	A1096	103
Instructional Help	A045	114
Integrated Physics and Chemistry	A420	43

Interactive Media Portfolio Capstone	A1034SM	73
Interactive Multimedia Production	A1031/A1031SM	72
Intermediate EL	A182	25
Internship/Capstone Experience	A1027	88
Intro to Photographic Concepts	BIPAMC	73
Introduction Ceramics I	A609SM	56
Introduction to Agriculture, Food, and Natural Resources	A1020	84, 85, 86
Introduction to Artificial Intelligence Devices and Cloud Computing	A1095	103
Introduction to Commercial Driving and Vehicle Transportation	A2111	108
Introduction to Construction and Design	A934	81
Introduction to Construction and Design and Management and Construction Safety	A2004	96
Introduction to Cosmetology	A2014	97
Introduction to Criminal Justice	A2035	103
Introduction to Cybersecurity	A2149/A2149SM	102
Introduction to Education (HCC Dual Credit)	A846	108
Introduction to Engineering Design	A855	91, 93, 105, 117
Introduction to Engineering Design (IED)	A2054	105
Introduction to Flight and Aircraft System	A1163/A1163SM	92
Introduction to Geographic Information Systems	A2040	102
Introduction to Homeland Security	A2037	102, 103
Introduction to IBDP Core	A052IB	33
Introduction to Sustainable Agriculture	A1080	87
Introduction to Visual Arts ART 101	A1101SM	56
IT Essentials (Computer Repair)	A1090	104
Jazz Ensemble	A667	64
Journalism I	A122	20
Journalism II	A124	20
Kitchen Basics and Fundamentals of Baking	A2010	98
Latin I	A522	51
Latin II	A524	51
Learning Environment for Preschoolers	A2126SM	101
Life Skills	A765	119
Linux Essentials	A1092	104
Literacy Acceleration	A100R	116
Local, State, and National Government	A206	29
Manufacturing Internship	A851	109
Marine Science/Oceanography	A417/A417SM	44
Marketing I	A775	77, 83
Marketing II	A776	77
Math Intervention	A095/A095SM	116
Math Support	A192SM	117
Mechanical Systems in Agriculture	A1082	85
Mechanical and Electrical Components	A2067	106
Medical Interventions	A2022	100
Music Appreciation	A671SM	60
Music Fundamentals I	A672	61
Music Studio Practice	A686	62
Natural Resources and Ecology	A2100SM	86
NCCER Electrical I	A2139	79
NCCER Electrical III	A2141	79
NCCER Foundations of Building Construction	A2135	78, 79, 80
NCCER Heating, Ventilation and Air Conditioning I (HVAC I)	A2142	79
NCCER Heating, Ventilation and Air Conditioning II (HVAC II)	A2143	80

NCCER Heating, Ventilation and Air Conditioning III (HVAC III)	A2144	80
NCCER Plumbing I	A2145	80
NCCER Plumbing II	A2146	80
NCCER Plumbing III	A2147	81
NCCES Electrical II	A2140	79
Networking I	A1091	104
Newcomer EL	A180	25
Non-Structural Analysis and Damage Repair	A2064	106
Nursery Landscape/Turf Management	A923	84
Nutrition and Wellness	A732SM	68
Office Systems-Excel	A786/A786SM	75
Office Systems-Word	A789/A789SM	75
Optimizing Artificial Intelligence Devices and Cloud Based Technology	A1096	104
Orchestra	A681	65
Painting and Refinishing	A2065	106
Peer Helper	A018	114
Peer Tutor	A035	114
Personal/Life Fitness	A738	70
Photography and Cinematography Capstone	BIACBTC	74
Physical Education I	A702	69
Physical Education II	A704	69
Physical Education III	A706	70
Physical Education IV	A708	70
Piano Lab I	A682	62
Piano Lab II	A684	62
Power Mechanics I	A865	83
Power Mechanics II	A866	83
Powertrain Engine Repair and Performance	A2062	106
Practical Experience as a Food Service Professional	A821	82
Precalculus I	A346/346SM	38
Principles of Accounting and Finance	A773/A773SM	75, 76, 77
Principles of Agricultural Science - Plant Science	A1021	84
Principles of Arts, Media and Communication - Broadcasting (AMC)	A2092	74
Principles of Aviation and Aerospace	A8854/A8854SM	92
Principles of Biomedical Sciences	A2020	99
Principles of Business Administration and Management	A795/A795SM	75, 76, 77
Principles of Construction Design	A935	82
Principles of Engineering	A854	93, 105
Principles of Hospitality and Tourism	A1040/A1040SM	83
Principles of Multimedia	A1030/A1030SM	72
Production and Companion Animals	A1013	87
Psychology	A215SM	30
Public Speaking and Forensics	A152	21
Quantitative Reasoning	A3314SM	39
Reading Intervention	A100	116
Rhythm Lab	A669	61
Robotic Systems and Industry 4.0 Applications	A2052	105
Robotics, Microprocessors and Microcontrollers	A877	90
Routing, Switching and Cyber Security	A1093	104
Salon Environment/Practicum	A2016	98
Securing Artificial Intelligence Devices and Cloud Based Technology	A1097	103
Smart Manufacturing and Quality Control	A2050	104
Sociology	A217SM	30

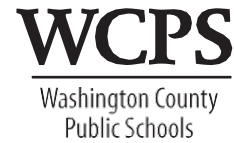
Spanish I	A532	51
Spanish II	A534	51
Statistics	A190SM	38
String Lab	A670	61
Structural Analysis and Damage Repair	A2066	106
Structure and Functions of the Human Body	A2106SM	89
Structure and Functions of the Human Body	A2025	100
Studio Practice Art	A615SM	57
Studio Practice Photography	A632	58
Study Hall	A030	114
Suspension, Steering and Brakes	A2061	106
Taking Informed Action: A Project-Based Exploration of Civic and Social Issues	A270SM	30
Teacher Aide	A050	115
Teaching as a Profession	A442, A2048	89, 101
The Flying Environment and Flight Planning	A1037/A1037SM	93
The History of Rock and Roll MUS 180	A1180SM A677	62
Twentieth Century Music	A204	61
United States Studies II	A1008	29
Veterinary Internship	A1007	109
Veterinary Technology	A676	87
Vocal Jazz Ensemble	A712	63
Weight Conditioning	A1044	70
Work Based Learning Experience	A778	109
Work Preparation I	A779	110
Work Preparation II	A805/A805SM	110
Work-Based Learning Experience	A208	78
World History	A070	29
Yearbook		115



Appendix

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 to 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:

Secondary Courses Certified

College Courses Articulated

Number	Title	Final Grade %	Number	Title	Credit
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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