WORCESTER COUNTY BOARD OF EDUCATION
NEWARK, MARYLAND

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Supervisor of Human Resources
Worcester County Board of Education
6270 Worcester Highway
Newark, MD 21841
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WeXL
2019 – 2020
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**Introduction**

The purpose of the high school program in Worcester County is to help students gain the knowledge and skills needed to follow academic pursuits in post-secondary education, to prepare students for careers in the world of work, and to help develop those citizenship qualities needed to maintain and improve our democratic way of life.

If the schools are to achieve the purposes for which they function, an attempt must be made to provide a program of instruction that is meaningful and valuable to each individual eligible for a high school education. School counselors, teachers, and parents need to encourage all students to participate in the most rigorous program for which they may be capable.

The awarding of a high school diploma should indicate the student's successful completion of the minimum requirements set forth by the Maryland State Board of Education and the Worcester County Board of Education. The diploma shall be interpreted to mean that the student has complied with the academic, social, and attendance regulations of the school and has successfully completed courses that are commensurate with his/her ability.

Students graduating from a Worcester County High School will be required to satisfy all the requirements of the State of Maryland plus those additional requirements of the Worcester County Board of Education.

Eligible graduates of the Worcester County Public Schools may be awarded the Worcester County Certificate of Merit and/or a Career and Technology Program Certificate. These certificates provide graduates with documented evidence of the type of high school program completed. The Career and Technology Program also describes the skills obtained while enrolled in a technology program. This certificate should help students understand the skills they possess when seeking employment and help employers assess the proficiencies attained by graduates seeking employment.

A Maryland High School Certificate is available only for students with disabilities receiving special education services who are not able to meet the requirements described above.

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1 See page 11.
Credit Requirements
To be awarded a diploma, a student shall be enrolled in a Maryland Public school system and have earned a minimum of 21 credits in the following areas:

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Current Specific Credit Requirements</th>
<th>State Required Assessed Course&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Subject Area</th>
<th>Current Specific Credit Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 credits</td>
<td>PARCC/MCAP English 10</td>
<td>Fine Arts</td>
<td>1 credit</td>
</tr>
<tr>
<td></td>
<td>• English 9</td>
<td></td>
<td>Physical Education</td>
<td>0.5 credit</td>
</tr>
<tr>
<td></td>
<td>• English 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• English 11 – American Literature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• English 12 – British Literature&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics&lt;sup&gt;4&lt;/sup&gt;</td>
<td>3 credits, including:</td>
<td>PARCC/MCAP Algebra 1</td>
<td>Health</td>
<td>0.5 credit</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Algebra concepts</td>
<td></td>
<td>Technology Education</td>
<td>1 credit</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Geometry concepts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 other Math credit (not Math elective credit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 credits, including:</td>
<td>Government HSA</td>
<td>Electives</td>
<td>1-3 credits to include courses beyond</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in U.S. History</td>
<td></td>
<td>requirements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Local, State and National Government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 credit in World History</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td><strong>Students entering 9&lt;sup&gt;th&lt;/sup&gt; Grade prior to 2019-20</strong></td>
<td>Biology HSA/MISA</td>
<td>Program Choice</td>
<td>2 credits in World Language</td>
</tr>
<tr>
<td></td>
<td>3 credits, including:</td>
<td></td>
<td></td>
<td>OR 2 credits in an approved Advanced</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Environmental Science</td>
<td></td>
<td></td>
<td>Technology Program OR</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Biology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 additional credit including laboratory experience, in any or all of the following areas:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earth Science, Life Sciences, Physical Sciences, Chemistry, Physics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Students Entering 9&lt;sup&gt;th&lt;/sup&gt; Grade 2019-20</strong></td>
<td></td>
<td></td>
<td>4 credits in a State-approved Career</td>
</tr>
<tr>
<td></td>
<td>3 credits, including:</td>
<td></td>
<td></td>
<td>&amp; Technology Education Completer Program&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Biology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 credit in Physical Science or Chemistry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1 additional Maryland NGSS science course credit including laboratory experience, in any or all of the following areas:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earth, Space, and Environmental Sciences, Life Sciences, Physical Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 During transitions from HSA-related assessments to MDCCRS based assessments, graduation requirements for assessments will vary by year of enrollment in the course. Please consult pages 6-7 for more detailed information.
3 Upon teacher recommendation, students may substitute AP English Literature & Composition, College Writing, World Literature, Fundamentals of English I or Fundamentals of English II as their fourth year English credit.
4 While only three credits in mathematics are required for graduation, a student must enroll in a minimum of one course in mathematics each year of high school regardless of the number of high school math credit(s) earned in middle school. Unless a mathematics credit is needed to meet a graduation requirement, a 5<sup>th</sup> or 6<sup>th</sup> year student does not need to enroll in a mathematics course.
5 Some programs require more than 4 credits for completion.
Maryland High School Assessments
The assessed courses are English 10, Algebra I, Course 2 of the Maryland NGSS Science Course Sequence, and American Government. The requirements for these assessments vary as a result of the transition from The Maryland High School Assessments to the Partnership for Assessment of Readiness for College and Careers (PARCC) and the MD Comprehensive Assessment Program (MCAP). Students should check with the high school counselor to determine the requirements that will affect them. The most current high school graduation requirements from The Maryland Department of Education (MSDE) are as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Tester Status</th>
<th>Assessment Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I</td>
<td>Enrolled in Algebra I for the first time beginning in Fall 2015</td>
<td>Participate in PARCC Algebra I</td>
</tr>
<tr>
<td></td>
<td>Completed Algebra I prior to the Fall of 2015</td>
<td>Receive a score for Algebra I PARCC or Algebra I HSA</td>
</tr>
<tr>
<td></td>
<td>Enrolled in Algebra I after the 2015-16 school year</td>
<td>Pass Algebra I PARCC/MCAP</td>
</tr>
<tr>
<td>English 10</td>
<td>Enrolled in English 10 after the 2015-16 school year</td>
<td>Pass English 10 PARCC/MCAP</td>
</tr>
<tr>
<td></td>
<td>Entered 9th grade in or after the 2019-20 school year and have completed Course 2 of the required high school NGSS science course sequence</td>
<td>Pass MISA (New Maryland Integrated Science Assessment – formerly Biology HSA)</td>
</tr>
<tr>
<td>American Government</td>
<td>Entered 9th Grade after the 2013-14 school year</td>
<td>Pass Government HSA</td>
</tr>
</tbody>
</table>

Transition Course Information
All students shall be assessed using acceptable college placement cut scores no later than 11th grade in both Mathematics and English. If they do not achieve a score that indicates college and career readiness, they will be enrolled in transition course(s) or other instructional opportunities during their 12th grade year. It is important to understand that student performance on the PARCC/MCAP Algebra I and PARCC/MCAP English 10 will be a good indicator for how they will perform on the college placement assessments that will evaluate college & career readiness and inform the need for transition courses.

Bridge Plan for Academic Validation
The Bridge Plan for Academic Validation provides eligible students an additional opportunity to meet the testing requirement that will lead to a Maryland High School Diploma. Students must demonstrate defined knowledge and skills to graduate, either through the traditional testing program, which includes passing or earning the required combined score, or the Bridge Plan program. A WCPS student who thinks (s)he qualifies

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6 College and Career Readiness and College Completion Act of 2013
for this option is encouraged to explore the Bridge Plan for Academic Validation option with a school counselor. The Bridge Plan has been approved by the Maryland State Board of Education and is included in the Code of Maryland Regulations (COMAR).

**Passing Scores for Required High School Graduation Assessment Requirements**

<table>
<thead>
<tr>
<th>Biology HSA</th>
<th>Government HSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>394</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Year</th>
<th>PARCC/MCAP</th>
<th>PARCC/MCAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduating Classes of 2020, 2021, 2022, 2023</td>
<td>725</td>
<td>725</td>
</tr>
<tr>
<td>Graduating Class of 2024</td>
<td>750 NEW Score for this cohort</td>
<td>750 NEW Score for this cohort</td>
</tr>
</tbody>
</table>

**Assessment Outcomes**
The following chart lists possible outcomes after taking the required state high school assessments. Students should consult with their school counselor for personalized information regarding their outcomes.

<table>
<thead>
<tr>
<th>Assessed Course</th>
<th>Required Assessment</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>+</td>
<td>On track to receive MD High School Diploma</td>
</tr>
<tr>
<td>Pass</td>
<td>+</td>
<td>Assistance &amp; Retake Exam</td>
</tr>
<tr>
<td>Fail</td>
<td>+</td>
<td>Retake Course</td>
</tr>
<tr>
<td>Fail</td>
<td>+</td>
<td>Retake Course &amp; Exam</td>
</tr>
</tbody>
</table>

**AP Substitute Exams for the Maryland HSA/PARCC**
To encourage more rigorous coursework and eliminate duplicate testing, MSDE accepts scores of 3, 4, and 5 on identified Advanced Placement (AP) exams (see below) in place of passing scores on the corresponding High School Assessments.

<table>
<thead>
<tr>
<th>MD Assessment</th>
<th>Advanced Placement exam (acceptable scores: 3, 4, 5)</th>
<th>Student Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I PARCC/MCAP</td>
<td>Calculus AB Calculus BC Statistics</td>
<td>Take AP course and test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Earn acceptable score</td>
</tr>
<tr>
<td>Biology HSA</td>
<td>Biology</td>
<td>Substitute acceptable AP score for HSA</td>
</tr>
<tr>
<td>English 10 PARCC/MCAP</td>
<td>English Language English Literature</td>
<td>passing score</td>
</tr>
<tr>
<td>Government HSA</td>
<td>*U.S. Government and Politics</td>
<td></td>
</tr>
</tbody>
</table>

*Course not offered by WCPS.*
## College and Career Readiness Assessment Requirements

As a result of the College and Career Readiness and College Completion Act of 2103, students must also meet certain assessment requirement in addition to the above graduation requirements. The chart below explains the assessment requirements students must meet by Grade 11. Also, please refer to the MSDE English Language Arts and Mathematics assessment requirements located in the Addendum of this catalog.

<table>
<thead>
<tr>
<th></th>
<th>11th Grade Assessment</th>
<th>Senior Coursework</th>
<th>Re-Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Language Arts (ELA)</strong></td>
<td>PARCC English 11 score of Level 4 or 5 English 10 score of Level 4 or 5 satisfies the CCR determination only for 11th graders enrolled in English 11 during the 2015-2016 &amp; 2016-2017 school years (pending continued research)</td>
<td>OR SAT Score of 480 or greater Evidence-based Reading &amp; Writing (EBRW) Section (Administered 2017-18 or after) OR ACT Score of 21 or greater Composite/ Average of English Test &amp; Reading Test scores OR AP English Language &amp; Composition or English Literature Composition Exam Score of 3, 4, or 5 OR ACCUPLACER (Wor-Wic) Reading 79+ and Sentence Skills 90+ OR (Subject to change in 2019-20) Admission to and enrollment in a Maryland IHE’s appropriate ELA college credit bearing course. Existing local agreements between LEAs and community colleges on CCR are accepted. *See page 16 for eligibility</td>
<td>Dual Enrollment by Local Agreement If a student is not college and/or career determined at the end of 11th grade, he/she will: Complete an ELA transition course or an additional ELA “instructional opportunity” (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college. These articulated college courses include, but are not limited to, Developmental English, courses approved by the community college as sufficient preparation for college, or courses that are taught by community college faculty. Summative Course Assessment (externally validated by local community college) OR PARCC 11 OR SAT/ACT OR Accuplacer OR AP Test</td>
</tr>
<tr>
<td><strong>MATH</strong></td>
<td>Algebra II Score of Level 4 or 5 Algebra II Score of Level 4 or 5 satisfies the CCR determination only for 11th graders enrolled in Algebra II during the 2015-2016 &amp; 2016-2017 school years (pending continued research)</td>
<td>OR SAT Score of 530 or greater Mathematics Section (Administered 2017-18 or after) OR ACT Score of 21 or greater on Mathematics Test OR Calculus AB Calculus BC Statistics Exam Score of 3, 4, or 5 OR Elementary Algebra test score of 70+ and College Level Math test score of 20+ (Subject to change in 2019-20) Admission to and enrollment in a Maryland IHE’s appropriate math college credit bearing course. Existing local agreements between LEAs and community colleges on CCR are accepted. *See page 16 for eligibility</td>
<td>Complete a math transition course or an additional math “instructional opportunity” (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college. Saturation Course Assessment (externally validated by local community college) OR PARCC Algebra II OR SAT/ACT OR Accuplacer OR AP Test</td>
</tr>
<tr>
<td><strong>Meet CCR Standard</strong></td>
<td>*If a student is determined “college ready” in mathematics prior to 11th grade, all CCR requirements have been met for mathematics. However, students entering the 9th grade class of 2014-2015 school year shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Career/Tech Programs (CTE)</strong></td>
<td></td>
<td></td>
<td>An appropriate transition course or other instructional opportunity consistent with the completion of a State Approved Career and Technology Education Program of Study Technical Skill Assessment recognized by MSDE leading to a license or an industry certification</td>
</tr>
</tbody>
</table>
Courses Meeting the Fine Arts Requirements

The following courses meet the graduation requirement for Fine Arts.

<table>
<thead>
<tr>
<th>Music</th>
<th>Theatre Arts</th>
<th>Visual Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>121103</td>
<td>American Popular Music</td>
<td>220103 Introduction to Theatre</td>
</tr>
<tr>
<td>120143</td>
<td>Band (Fall)</td>
<td>220113 Theatre Production</td>
</tr>
<tr>
<td>120153</td>
<td>Band (Spring)</td>
<td></td>
</tr>
<tr>
<td>120103</td>
<td>Band (Year-Long)</td>
<td></td>
</tr>
<tr>
<td>120132</td>
<td>Band Front/Majorette</td>
<td></td>
</tr>
<tr>
<td>122113</td>
<td>Concert Choir</td>
<td></td>
</tr>
<tr>
<td>121163</td>
<td>Foundations of Music History</td>
<td></td>
</tr>
<tr>
<td>124123</td>
<td>Jazz Ensemble</td>
<td></td>
</tr>
<tr>
<td>121123</td>
<td>Orchestra</td>
<td></td>
</tr>
<tr>
<td>120123</td>
<td>Show Choir</td>
<td></td>
</tr>
</tbody>
</table>

Courses Meeting the Technology Education Requirements

The following courses meet the graduation requirement for Technology Education.

<table>
<thead>
<tr>
<th>Technology Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>161103</td>
</tr>
<tr>
<td>436113</td>
</tr>
<tr>
<td>814103</td>
</tr>
<tr>
<td>462113</td>
</tr>
</tbody>
</table>

Courses Meeting the Advanced Technology Education Requirements

Completion of 2 of the following courses meet the graduation requirement for Technology Education.

<table>
<thead>
<tr>
<th>Technology Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>163203</td>
</tr>
<tr>
<td>162113</td>
</tr>
<tr>
<td>162123</td>
</tr>
</tbody>
</table>
As indicated on Page 5, a student can complete his/her graduation requirements through the following Program choices:

<table>
<thead>
<tr>
<th>Option One: World Language</th>
<th>Option Two: Advanced Technology Education</th>
<th>Option Three: Career &amp; Technology (CTE) Completer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Credits in a consecutive World Language and 3 Credits of Elective Coursework</td>
<td>2 Credits in an Approved Advanced Technology Education Sequence and 3 Credits of Elective Coursework</td>
<td>4 Credits in a Career &amp; Technology Education Program7 and 1 Credit of Elective Coursework</td>
</tr>
</tbody>
</table>

7 Some programs require more than 4 credits for completion. See CTE course descriptions.
Service Learning Requirements

In accordance with the Maryland State Department of Education Approved Service Learning Implementation Plan, service learning is infused into the curriculum and provides multiple opportunities for student participation. In the required ninth grade Government social studies course, students must complete two structured projects of independent service learning activities outside of school hours that include planning, action, and reflection.

The combination of the successful completion of both the middle school service learning program and the projects infused into the Government course meets the Maryland Service Learning Graduation Requirement. Students that did not attend 6th, 7th, or 8th grade or took Government in Worcester County should meet with their school counselor to ensure they meet the service learning graduation requirement.

Maryland State Diplomas & Certificates

Maryland State Diploma
The Maryland State diploma awarded to students upon graduation from a Maryland public high school shall be:
1. A State diploma; and
2. In recognition of the fulfillment of the minimum enrollment (four years beyond grade 8), competency prerequisite, credit, and student service requirements.

Diploma Endorsements: Certificate of Merit
Graduates may qualify for the Worcester County Certificate of Merit by passing all required State assessments in addition to the following coursework:

- English - 4 credits (Must be earned in Level 3 or 4 courses)
- Social Studies - 4 credits (Must be earned in Level 3 or 4 courses)
- Science - 4 credits (Must be earned in Level 3 or 4 courses). (Completion of the Biomedical Science or Pre-Engineering Program will be considered as meeting one of the Science credits).
- Mathematics - 4 credits (Must be earned in Level 3 or 4 courses)
- World Language - 3 credits (Must be earned in same language)
- Electives - 6 credits (All Level 3 or above)
- Fine Arts - 1 credit
- Physical Education/ Health/Family Life - 1 credit
- Technology Education - 1 credit

Students receiving this certificate may have no final course grade of F. Students must also have a 3.5-weighted GPA. This is a 28-credit requirement.

Maryland High School Certificate
The Maryland High School Certificate is awarded only to students with disabilities who have an Individualized Education Program (IEP) and who do not meet the requirements for a diploma but who meet one of the following standards:

- The student is enrolled in an education program for at least four years beyond grade eight or its age equivalent, and is determined by an Individualized Education Program (IEP) team to have developed appropriate skills for entering the world of work, acting responsibly as a citizen, and enjoying a fulfilling life. Career Preparation shall include (but not be limited to) gainful employment, work activity centers, sheltered workshops, and supported employment.
- The student has been enrolled in an education program for four years beyond grade eight or its age equivalent and has reached age 21.
The school year is divided into four (4) marking terms. At the end of each nine-week term, students receive a report card for each subject. The report card provides an assessment of student performance that term. Students earn number grades in the academic subjects based upon a percentage assessment. These number grades are assigned as follows:

- 90-100%  A  Superior achievement
- 80-89%    B  Good achievement
- 70-79%    C  Average achievement
- 60-69%    D  Poor achievement
- 59%-50%   F  Failing work

Students will also receive an assessment on how well they are working in accordance with their ability. Each report card contains an area on which the teacher and/or parent may write comments concerning the student's progress. This area may also be used to include a request for a conference.

Report cards are sent home each term and contain the records of attendance. Parents should sign the report card and return it to the school promptly.

Unit Of Credit

Once the student successfully meets the expectations of a class, the student receives the appropriate unit of credit. It is the accumulation of these units of credit in the appropriate subjects/subject area, and in the required number, that will determine which high school diploma and/or certificate the student receives.

Grade Value

Letter grades are assigned on a percentage basis. Both the percentage and letter grades will appear on the student's report card each marking term. Each letter grade carries an additional numerical value. These values are:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

These grade values are utilized in conjunction with the course level value to make determinations of the student's academic achievement.

Course Levels

Each course in the curriculum of the Worcester County high schools has been assigned a course level value. This value is an indicator of the degree of difficulty the student may encounter. The student and his/her parents may wish to consult these values in their selection of courses. The course level value will appear on each student's report card. The levels are defined as:
<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Defined</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Basic</td>
<td>The courses are usually of a remedial nature.</td>
</tr>
<tr>
<td>II</td>
<td>General</td>
<td>Physical Education, Employment Experience, Family and Consumer Science, and Health courses.</td>
</tr>
<tr>
<td>III</td>
<td>College Prep</td>
<td>These courses are of a challenging nature. English, Mathematics, World Language, Social Studies, Science.</td>
</tr>
<tr>
<td>IV</td>
<td>Advanced College Placement/Dual Enrollment</td>
<td>These courses are only those for which advanced college placement credit may be earned.</td>
</tr>
</tbody>
</table>

**Academic Significance**

The academic significance of a completed course of study may be determined by multiplying the numerical value of the grade by the value of the course level. For example, a student receiving the letter grade of "A" (value 4) in an advanced course (Level IV) would earn the academic significant value of 6.

Worcester County high schools utilize the academic significance in determining grade point average, scholastic standing, academic recognition and admission to the various National Honor Societies. Note: An "F" grade will receive no credit before or after weighting.

**Final Exam Policy**

**Philosophy**

The Worcester County Board of Education believes that the effectiveness of the instructional program is enhanced by well-defined learner outcomes, the use of a variety of effective teaching strategies, and various methods of assessment. The Board recognizes that a variety of assessments provides much of the information that make the cycle of instruction work. Measures of student achievement help educators ensure that the school system will meet its instructional goals.

The Board further believes that final examinations: help to bring focus to the essential outcomes specified in the course of study, help to bring closure to a course and promote curricular articulation among the high schools. Final examinations are an important measure of student achievement and mastery of course content. They provide principals, school improvement teams, and others with an additional means of evaluating the success of the school's instructional program. They provide a measure of quality control, and are responsive to the increasing expectations of the public and the professional staff relative to accountability. Finally, experiences with locally developed final examinations can better prepare students for successful achievement in end-of-course State examinations required for graduation.

**General Guidelines**

1. Final examinations must be completed in order to qualify for the awarding of high school course credit. All students will take a comprehensive final examination in all grade 9 - 12 subject areas. However, the following exemptions will apply:
   a. Students enrolled in high school courses who take college/national examinations or MSDE approved CTE industry certification tests at the immediate end of the course are exempt from final examinations. Their final course grade will be the cumulative grade in the course. In some cases, AP courses may be offered in the fall of the year when no AP examinations can be administered. In these instances, students shall take a comprehensive final examination.
   b. Upon the recommendation of the teacher and approval of the principal, other individual exemptions may occur.
2. Final examination grades shall be averaged as part of the final course grade and shall count as 20% of the final course grade.
3. Students who receive special education services are expected to successfully complete their Individualized Education Plan. Students who receive special education services in general education classes will take final examinations as required by the Individualized Education Plan.
4. Final examinations shall be based on the contents of the entire course and evolve directly from the approved curriculum.
5. An objective and/or essay test shall constitute a reasonable portion of the final examination grade in all courses. In addition, portfolios and other performance assessments, etc. may be included in the final examination. The assessments of subject knowledge of the student will incorporate methods appropriate to the State high school assessment and will cause him/her to exhibit higher level thinking skills associated with PARCC/HSA and other current learning philosophies.

6. Time shall be allocated in each course for a review prior to the final examination.

7. 100% of the examination will be developed by supervisors/coordinators in sessions with content area teachers from schools in the county.

8. As the State end-of-course assessments are implemented, other local end-of-course requirements may change. Currently, students who take PARCC or AP exams will be exempt from taking final exams.

9. Final examinations will be administered on a half-day basis for students scheduled at the end of the course and will not exceed two hours in length.

10. The annual County school calendar will indicate the half days for students designated as EXAM DAYS, taking into account the differing schedules among the high schools.

High School Review Credit (School Year)
Students who wish to raise a D or F subject grade received in a high school course may attempt to do so by attending a school year review credit program. The following standards apply to review credit enrollment.

- The student must have attended the class to be reviewed for the full course length even though he/she may have received a failing grade and completed a final exam.
- A student may earn review credit in an HSA or PARCC course only if they fail the course but successfully pass the High School Assessment or PARCC Assessment.
- Subjects offered during the school year will be limited to those in which there is sufficient student demand.
- No less than 45 clock hours of in-class work and completion of the curriculum will be accepted for one unit of credit in academic subjects. 22.5 clock hours of in-class work will be accepted for one-half credit in academic subjects.
- Courses may be offered after school, during school, and during the summer.
- Students must take the final exam for the course. Final exam grades represent 20% of the final course grade.
- Students will be responsible for their transportation arrangements if transportation is not available.
- Students must have approval by his/her school principal or designee in order to be enrolled in review credit courses.
- Students may earn a maximum of four (4) review credits.
- Grades earned in review credit courses will be entered on the student's permanent record. The original grade shall be null and void. Requests by a student's parent/guardian that a grade not be recorded will be honored.

Repeating a Course
A student may repeat a course to replace a D or an F, but only during the following semester in which the course is offered.
Earning High School Credit during Middle School

Students in middle school may earn high school credit upon successful completion of the high school course requirements. Those middle school students who wish to receive high school credit for a World Language must successfully complete all course requirements and receive a passing grade and participate in the final exam. In order to meet the high school graduation requirement for Algebra I, the student must successfully complete the Algebra I course and receive a passing score on the PARCC Algebra I assessment. If a student passes the Algebra I course, but fails the Algebra PARCC Assessment, the student is awarded the Algebra I high school credit, but he/she is required to participate in remediation to prepare for retaking the PARCC Assessment. Since Algebra I is the foundation of high school mathematics, a student who does not meet the graduation requirement may be advised to retake the Algebra I course as a freshman.

The middle school course grade is included in the high school grade point average (GPA) unless a student opts to retake the course in the first semester of his/her freshman year of high school in which case the highest grade will be included in GPA.

Some colleges, universities, and the National Collegiate Athletic Association (NCAA) Clearinghouse may not accept high school graduation credit earned while in middle school. In those cases, students need to fulfill state graduation requirements by earning credits in subsequent high school courses for which the middle school courses were prerequisites. For example, students earning Algebra I and World Language credits in middle school may be required to take additional courses in those subjects in high school to meet Clearinghouse requirements.

Earning College Credit through High School Coursework

Worcester County High Schools offer eligible students opportunities to receive college credit/ advanced placement/or both through the following courses and program options:

1. Advanced Placement Courses

Each high school and Worcester Technical High School offer advanced placement (AP) courses through the College Board. The College Board’s AP Program enables students to complete college-level studies while they are still in high school and to obtain college placement or credit, or both, on the basis of their performance on AP Examinations. Colleges and universities formulate an AP policy appropriate to their institution:

- Some award “credit” for qualifying AP Exam grades of 3 or better. This means students can receive college credit toward their college degrees.
- Others award “advanced placement.” This means students can skip introductory courses, enter higher-level courses, and/or fulfill general education credits.

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8 During transitions from HSA-related assessments to MDCCRS based assessments, requirements for earning credit in Algebra I will vary by year of enrollment. Please consult pages 6-7 for more detailed information.
2. Dual Enrollment Courses on Worcester County Public School Campuses

Worcester County Public Schools offers dual enrollment courses in partnership with Wor-Wic Community College, University of Maryland Eastern Shore, and Salisbury University. Certain courses will be taught on WCPS campuses by our faculty. Priority will be given to students who meet the admission requirements listed below and are seeking to obtain both high school and college credit. Additionally, students are responsible for applicable course tuition and fees to the college. Once a dual enrollment course has been successfully completed, the student will receive a letter grade from the WCPS teacher and one high school credit. This credit and letter grade will be reflected on the student’s high school transcript. Additionally, the student will receive the appropriate number of credits from the college, which will appear on the student’s college transcript.

Wor-Wic Community College

Students who wish to enroll in a Wor-Wic Community college dual enrollment course must meet the following requirements:

- be a junior or a senior who has earned at least 16 high school credits;
- have completed all service learning requirements;
- have successfully met HSA requirements;
- have demonstrated College & Career Readiness on the PARCC/MCAP assessment; and/or successfully received a score on the Accuplacer test consistent with eligibility for placement in a college credit bearing course level; and/or achieved SAT scores of 480 or better in Evidence-Based Reading & Writing and 530 in Mathematics; and/or a 21 or better on ACT English and Math; or submitting evidence of having met the requirements outlined in the current local agreement (have earned a 3.0 cumulative unweighted high school GPA, with at least a 3.0 cumulative unweighted GPA at the completion of their four required English courses and/or Algebra II grades of “C” or better for students who want to take MTH102 or MTH152 or a “B” or better for students who want to take MTH121);
- have a recommendation from the high school principal verifying that all of the eligibility requirements outlined above have been met.

Below is a list of Wor-Wic courses that may be offered on WCPS campuses. **Please note that all courses are not offered at each WCPS high school.** Please refer to the course descriptions beginning on page 24 of this catalog. More information is also available through your school guidance department.

<table>
<thead>
<tr>
<th>Fundamental of English I (ENG 101)</th>
<th>Precalculus II (MTH 122)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Statistics (MTH 152)</td>
<td>General Chemistry I (CHM 101)</td>
</tr>
<tr>
<td>Precalculus I (MTH 121)</td>
<td>Environmental Science (ENV 101)</td>
</tr>
<tr>
<td>World Civilizations I (HIS 101)</td>
<td></td>
</tr>
</tbody>
</table>

University of Maryland Eastern Shore Dual Enrollment Opportunities

A list of approved UMES courses is located in the Appendix of this catalog and may be offered on some WCPS campuses. More information about course offerings is also available through your guidance department.

Salisbury University

The Salisbury University Dual Enrollment Program establishes the standards and mechanisms for high school students from WCPS to enroll in select courses and receive Salisbury University credit upon successful completion. These courses are taught at the WCPS campus. Students must meet the following requirements:

- be a junior or senior who has earned at least 16 high school credits;
- have demonstrated College & Career Readiness on PARCC/MCAP, SAT, or ACT;
- have a written request from a parent or guardian;
- abides by all WCPS school policies and Code of Student Conduct, as well as SU’s Student Code of Conduct;
• have a recommendation from the high school principal verifying that all of the eligibility requirements outlined above have been met.

Below is a list of courses offered. **Please note that all courses are not offered at each WCPS high school.** More information is available on page 103 of this catalog and at the WTHS guidance office in regards to the WTHS courses associated with the Project Lead the Way Program.

<table>
<thead>
<tr>
<th>WCPS Course</th>
<th>SU Dual Enrollment Credit Earned</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLTW Pre-Engineering Sequence of 3 Courses: Introduction to Engineering Design, Principles of Engineering, and Engineering Design &amp; Development</td>
<td>ENGR 100</td>
<td>3</td>
</tr>
<tr>
<td>PLTW Pre-Engineering: Digital Electronics</td>
<td>COSC 250</td>
<td>4</td>
</tr>
<tr>
<td>PLTW Biomedical Sequence of 4 Courses: Principles of Biomedical Science, Human Body Systems, Medical Interventions, and Biomedical Innovations</td>
<td>BIOL 205, BIOL 214</td>
<td>8</td>
</tr>
<tr>
<td>AP Physics C</td>
<td>PHYS 221</td>
<td>4</td>
</tr>
<tr>
<td>AP Environmental Science</td>
<td>GEOG 150</td>
<td>4</td>
</tr>
<tr>
<td>SU General Chemistry</td>
<td>CHEM 121</td>
<td>4</td>
</tr>
<tr>
<td>SU Biology Concepts &amp; Methods</td>
<td>BIOL 210</td>
<td>4</td>
</tr>
</tbody>
</table>

### 3. Career Technical Programs

Worcester County Public Schools participate in articulation agreements with community colleges in various states. Students who earn a "B" or better in technical programs that have the content of their curriculum aligned with corresponding certificate and degree programs at the colleges may earn credit for the work they have completed in high school. Current articulation agreements between Worcester County Public Schools and Wor-Wic Community College can be found at [http://www.worwic.edu](http://www.worwic.edu). The current Worcester Technical High School courses that articulate and transcript credit can be found on Worcester Technical High School's website at [http://www.worcestertechhs.com](http://www.worcestertechhs.com).

Each institution of higher education has requirements and documentation for credit acceptance. Students are highly encouraged to speak with admissions departments at institutions they are considering attending to determine details of credit acceptance.
Alternatives to Four Year Enrollment at a Worcester County High School

There are two alternatives to completing all four years of high school in a Worcester County Public School. They are:

- Dual enrollment at a college/university or other accredited school with part-time enrollment at a Worcester County high school.
- Early Graduation for students who have met all requirements needed for a high school diploma;

Special provisions will be made for students during the senior year to encourage them to stay in high school including, but not limited to:

- The School to Careers Program will be made available to students who wish to come to school part of the day and have a job the rest of the day. Students are required to complete Employment and Career Preparation prior to this on-the-job experience.
- Attendance at the Worcester Technical High School for career program courses.
- Attendance at high school part of the day and taking courses at neighboring colleges/universities or other schools.

1. Dual Enrollment at Colleges / Universities / Other Schools

Sixty (60) days prior to seeking approval for dual enrollment, students must meet with a guidance counselor in their school to review all of the requisite conditions and to develop a plan of action to meet these conditions. Seniors and juniors who have earned at least 16 high school credits may take college credit (not remedial level) coursework at neighboring universities/colleges, or other schools in order to further their education. Students planning to attend must present evidence they have met ALL WCPS eligibility requirements prior to being released from high school during the school day. Students must take four credits of high school/dual enrollment coursework and may be awarded no more than the maximum number of credits permitted by the high school schedule for the year. Courses taken at colleges/universities, etc. must be courses that are not offered at the student’s high school, unless granted an exception by the Chief Academic Officer.

Students who elect to enroll in courses taken at the college campus, which are taught by college instructors, will receive a pass/fail grade on the high school transcript. Therefore, grades for courses which are taught by college instructors will not be included in determining eligibility for high school academic recognitions/awards. However, students who enroll in dual enrollment courses taken on a WCPS campus, which are taught by WCPS teachers, will receive a letter grade on their high school transcript and will be included in calculating GPA for academic recognitions. Please see page 16 for more information regarding dual enrollment courses taught on WCPS campuses. In the case of determining athletic eligibility, upon the request from the athletic director, dual enrollment students must provide a printed grade report from the college. The grade report should be given to the school counselor for review.

Students enrolled in this program will be responsible for completion of all application materials required by the institute of higher learning and payment of all applicable fees, textbooks, and transportation. In addition, students must:

- be a junior or senior who has earned at least 16 high school credits;
- be at least 16 years of age by the beginning of the college semester;
- have completed all service learning requirements;
- have successfully met HSA requirements;
- submit evidence of admission to the college/university;
- submit a Dual Enrollment Certification Form;
- submit evidence of having tested into credit bearing courses in an institution of higher learning such as PARCC/MCAP English 10, PARCC/MCAP Algebra II, SAT, ACT, and/or Accuplacer in RELA and Math; or submitting evidence of having met the requirements outlined in the local agreement with the institution of higher education(see page 16);
- submit current student schedule;
- submit transcript showing a cumulative grade point average of 2.5 or higher on a 4.0 scale;
- submit transcript with successful completion of Algebra II;
enroll in four courses during the senior year;\(^9\)
submit parent/guardian permission letter;
be certified by the school counselor as meeting all of the eligibility requirements outlined above;

Upon approval from the school principal, a letter of recommendation from the principal along with the Dual Enrollment Checklist is sent to the Chief Academic Officer for final approval.

**Wor-Wic Community College Dual Enrollment Opportunities**

A list of approved courses that are offered by Wor-Wic Community College is located in the Appendix of this catalog. These courses are available to take at Wor-Wic’s campus. Please refer to the Wor-Wic Community College Course Catalog for more information about courses. Students must meet the above criteria to be eligible. Please contact your school counselor for more information.

**2. Early Graduation – Receiving a Maryland High School Diploma after Successful Completion of 3 Years of High School**

At the beginning of the junior year, students seeking this alternative must meet with a school counselor in their school to review all the requisite conditions to receive approval of this alternative. A written request by the student and parent or guardian is made to and approved by the school principal, asking for the waiver of the 4\(^{th}\) year attendance requirement and certifying the early admission acceptance prior to the end of the 1\(^{st}\) semester of the Junior Year. Students must:

- Have completed all requirements for graduation and a Maryland High School Diploma
- Have a 3.0/4.0 GPA in core classes
- Have a cumulative attendance rate of 94%
- Have completed all assigned Success Plan Tasks in Naviance
- Have met all state competency prerequisites and student service requirements
- Present evidence of having tested into credit bearing courses in an institution of higher learning, such as PARCC Algebra II and PARCC English 11, SAT, ACT, and/or Accuplacer
- Submit an alternative plan for the waiver of the 4\(^{th}\) year enrollment requirement. The plan should include:
  - Written request from the student to the principal asking for the waiver of the 4\(^{th}\) year attendance requirement
  - Written request from a parent or guardian to the principal asking for the waiver of the 4\(^{th}\) year attendance requirement
  - Letter from the college certifying early admission acceptance to an accredited college
  - Plan of study for the first year of college

Upon approval from the school principal, a letter of recommendation from the principal is sent to the Chief Academic Officer for final approval. Once approved, students are eligible to receive their high school diploma and participate in the graduation ceremony along with the current senior class.

In accordance with COMAR 13A.03.02.11, the superintendent has determined that it is in the best interest of a student who seeks to graduate early to attend Wor-Wic Community College, Salisbury University, or the University of Maryland Eastern Shore, to attend instead as a full-time dual enrolled student. This entitles the student to receive a tuition reduction for four courses per semester. For more information, please refer to the dual enrollment section above.

**Concurrent Enrollment**

WCPS students may take college courses concurrently outside of the school day. Students enrolled in an institute of higher education will be responsible for the completion of all application materials required by the college and payment of all fees, textbooks, and transportation.

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\(^9\) Students must enroll in a course providing a fourth year of mathematics either at the high school or college level. Please consult page 5 for more information.
Students exiting high school may be eligible for departmental awards. Interested students should consult appropriate department chairpersons to determine their eligibility. Only seniors who have completed the last two years of school (junior and senior years) in a Worcester County Public High School are eligible for the Old Home Prize. Students who participate in the dual enrollment program and elect to enroll in courses at the college campus will not be eligible for certain academic recognitions. Please see page 19 for more information about enrolling in dual enrollment courses which are not taught by WCPS instructors.

**Senior Recognition Program**

A Three-Tiered Senior Recognition Program will be based on the cumulative, weighted grade point average in English, Mathematics, Social Studies, Science, and World Language, including all Advanced Placement/college level courses in Worcester County Public Schools' academic programs. The tier for which a senior may qualify will be determined at the end of the third marking period. The honor tiers are as follows:

- **Summa Cum Laude** – 5.05 GPA and above
- **Magna Cum Laude** – 4.90 to 5.04 GPA
- **Cum Laude** – 4.80 to 4.89 GPA

GPA calculations will be carried out to three decimals (or thousandths) and rounded to two decimals (or hundredths). For example, a GPA of 5.045 will be rounded to 5.05.

If a senior qualifies for one of the honor tiers, the designation will be noted on the student’s transcript.

**Honor Roll & Scholastic Achievement**

Honor roll and scholastic achievement recognition will be based on a student’s grade point average in all coursework. To be eligible for honor roll and scholastic achievement recognition, including the Scholastic Achievement Award, a student may not have a grade of D or F in any subject. A student must be enrolled in at least two major courses (English, Mathematics, Science, Social Studies, World Language, Technology/Business, Computer Science, or are enrolled in core courses of programs of study at Worcester Technical High School) each grading period at Level II or above.

To be eligible for the honor roll, a student must have a minimum weighted grade point average of 3.5. To be a candidate for the distinguished honor roll, a student must have a minimum weighted grade point average of 4.5 with no grade below a “B” in any course. A student with a “C” and a grade point average of 4.5 or higher will be moved to the honor roll.

Computations for honor roll will be determined by marking period grades.

**Honor Roll Computation - Example**

The honor roll is computed using the following calculations:

- A - 4 points
- B - 3 points
- C - 2 points

If the course is an honors course (Level III), one bonus point is added so that:

- A - 5 points
- B - 4 points
- C - 3 points

If the course is an AP course (Level IV), two bonus points are added so that:

- A - 6 points
- B - 5 points
- C - 4 points

All four courses taken each semester are used in the calculations, and each course is worth one credit, for a total of four credits.
For Semester I, during the first marking period, 19 points (5 + 5 + 5 + 4) are earned and divided by the four courses/credits for a weighted GPA of 4.75 and Distinguished Honor Roll status. For Semester II, during the second marking period, 16 points (4 + 4 + 4 + 4) are earned and divided by the four courses/credits for a weighted GPA of 4.00 and Honor Roll status.

Maryland Seal of Biliteracy for High School Students
A Seal of Biliteracy is a state award that recognizes a student’s high level of proficiency in listening, speaking, reading, and writing in one or more languages other than English. It is awarded to eligible high school students by participating school systems in Maryland. To be eligible for a Seal of Biliteracy, a student must fulfill the following requirements:

- Pass the Maryland High School Assessment in English 10
- Earn a minimum score of 4 on the appropriate World Language and Culture AP Exam.

See your world language teacher for additional information and a Seal of Biliteracy application.

WeXL Scholastic Recognition Program
Worcester County Public Schools recognizes scholastic achievement in order to:

- Recognize and reward students who excel in scholastic achievement;
- Instill pride in outstanding scholastic achievement;
- Focus attention on the academics and the worth and value of scholarship;
- Provide an incentive to stimulate students to excel in scholastic areas; and
- Promote school and community awareness and pride in outstanding scholastic achievement.

A marking period refers to the end-of-quarter classroom grade, as printed on a student's report card under the quarter column. There are four marking periods in a school year, shown as Q1, Q2, Q3, or Q4 on report cards. A marking period grade does not include the final course exam or the end-of-course/semester grade. Marking period grades are used to calculate Quarter Weighted GPAs.

Scholastic Recognition Banquet
A Scholastic Recognition Banquet (also known as the WeXL Banquet) will be held in the late spring of every school year for all high school students who qualify. Each school will form a committee to verify which students have qualified. Below are explanations and requirements of recognition available to students. Letters, pins, and certificates will be presented at the banquet.

Scholastic School Letter
To earn a scholastic letter, a student must maintain a 3.5 Quarter Weighted GPA, with no Ds or Fs in any course, for a range of four consecutive marking periods. This achievement equates to an Honor Roll status or higher. To qualify, a student must be enrolled in at least two major courses (English, Mathematics, Social Studies, Science, World Language, Technology/Business, Computer Science or are enrolled in core courses of programs at study at Worcester Technical High School at a Level II or higher.

- Consecutive marking periods can be in the same school year (Q1, Q2, Q3, and Q4) or they can occur consecutively from one year to the next (Q3 and Q4 in Semester 2 of a school year, and Q1 and Q2 in Semester 1 of the very next school year).
- If a student does not earn a 3.5 Quarter Weighted GPA in a marking period immediately prior to the banquet, after having earned four consecutive marking periods not yet recognized, that student will still be invited to the banquet.
  - Exception 1: All students who have earned a 3.5 Quarter Weighted GPA for three consecutive marking periods in their ninth grade year, will qualify for the banquet in the late spring of their ninth grade year.
  - Exception 2: Students new to Worcester County Public Schools in grades 10-12 who qualify for three consecutive marking periods immediately after enrollment will earn a scholastic school letter.

Note: Students who transfer from one Worcester County Public School high school to another will “carry” their consecutive marking periods with them and will have the number of eligible marking periods applied to their new school in our system.

Scholastic Bar Pin
The second time a student earns a 3.5 Quarter Weighted GPA, with no Ds or Fs in any course, for a range of four consecutive marking periods, the student will be presented with a bar pin to be added to the student’s letter. A student will continue to earn bars for achieving this standard.

Scholastic Star Pin
To earn a scholastic star pin, a student must maintain a 4.5 Quarter Weighted GPA, with no grade below a B in any course, for a range of four consecutive marking periods. This achievement equates to a Distinguished Honor Roll status. A student will continue to earn stars for achieving this standard.
Consecutive As Certificate
The same marking periods used to qualify for the Scholastic Recognition Banquet will be used to qualify a student for the Consecutive As recognition. Consecutive marking period grades are used in this recognition, not end-of-course or semester grades.

General Information

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

For more information on the Attendance Policies, see the Worcester County Public Schools’ Student Handbook.

English for Speakers of Other Languages (ESOL) Program
As required by federal legislation, a student whose overall proficiency level on the English language proficiency assessment is below 4.5 must be identified as an English Learner (EL) in Maryland. A student identified as an EL must be offered ESOL Program services until they meet the state exit criteria.

All programs include English language development and teaching strategies differentiated for each student’s level of English language proficiency. These strategies are used to help each student reach English proficiency in listening, speaking, reading, and writing and succeed academically in all core subjects. The expectations for ELs are that students fully transition into mainstream classes, meet appropriate academic achievement standards for grade promotion, and graduate from high school at the same rate as mainstream students.

The method of instruction used in the ESOL program will be one of the following:
1. EL-specific English-only Instruction: English language skills and content are the focus of instruction in the EL only class.
2. Mixed Classes with English-only Support: English language skills and content are the focus of instruction in the ELs’ and non-ELs’ class.

Naviance
Worcester County Public Schools provides Naviance, a state of the art web-based college/career exploration program you can use at home. Naviance enables students to manage their personal college/career portfolio. It connects students and parents to college information, scholarships, career interests, learning styles, personality type, and resume building. Naviance also manages historical data. When seniors track their college application/admissions, the information is recorded in confidential scattergram plots. Current students can see the colleges former students have applied to and were accepted at, based on grade point average and SAT test scores. Counselors are able to send emails and important notices via Naviance. Students can view upcoming College Visits and register for visits if interested. Please contact your school’s guidance department for more information and/or to set up registration.

The links below can be used to access the Naviance Family Connection Portals for the following schools:

<table>
<thead>
<tr>
<th>School</th>
<th>Naviance Family Connection Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen Decatur Middle School</td>
<td><a href="http://www.connections.naviance.com/sdm">www.connections.naviance.com/sdm</a></td>
</tr>
<tr>
<td>Snow Hill Middle School</td>
<td><a href="http://www.connections.naviance.com/snowhill">www.connections.naviance.com/snowhill</a></td>
</tr>
<tr>
<td>Pocomoke Middle School</td>
<td><a href="http://www.connections.naviance.com/pocomokems">www.connections.naviance.com/pocomokems</a></td>
</tr>
<tr>
<td>Pocomoke High School</td>
<td><a href="http://www.connections.naviance.com/Pocomoke">www.connections.naviance.com/Pocomoke</a></td>
</tr>
<tr>
<td>Snow Hill High School</td>
<td><a href="http://www.connections.naviance.com/snowhillhs">www.connections.naviance.com/snowhillhs</a></td>
</tr>
<tr>
<td>Stephen Decatur High School</td>
<td><a href="http://www.connections.naviance.com/stephendecatur">www.connections.naviance.com/stephendecatur</a></td>
</tr>
</tbody>
</table>
Special Education

Special Education services are designed to meet the needs of students with disabilities who have been found eligible for services through the Individualized Education Program (IEP) process. An IEP is developed through an IEP Team and reflects special education instruction, supports, related services, and least restrictive environment guidelines in accordance with the Individuals with Disabilities Education Act (IDEA-R). NOTE: All diploma seeking students, including students with IEPs and 504 plans, must complete graduation requirements.

Transfer Students

A student who transfers from a middle or high school may be exempt from one or more of the required assessments if the high school principal awards the student credit for Algebra/Data Analysis, Biology, English 10 or Government or all of these. To award credit for each or all of these courses, the principal shall determine through the following considerations whether the student demonstrates subject matter knowledge aligned with the content standards for the subject:

- administration of standardized tests and examinations;
- inspection of transcripts, report cards, and other documents; and
- use of content knowledge and performance level interviews.

International Students

Course credit toward meeting the graduation requirements will be awarded on a case-by-case basis using the same criteria for awarding transfer credit.

504

Students become eligible for a 504 plan due to a documented disability that limits one or more major life functions. A multidisciplinary 504 team develops the 504 plan that reflects appropriate accommodations and modifications in accordance with Section 504 of the Rehabilitation Act. NOTE: All diploma seeking students, including students with IEPs and 504 plans, must complete graduation requirements.
Course Offerings in this Catalog of Approved High School Courses contain brief descriptions of all approved courses offered. Each high school offers a broad selection of these courses; however, courses may vary somewhat from high school to high school both in courses offered and content. Students and parents should work together to review the course offerings, the graduation requirements, and other information in this catalog to make the best choices for each student.

Also, please note that PSAT/SAT preparation instruction has been integrated through the English and Mathematics curricula. For specific information regarding a course, contact the subject area teacher or consult with your school counselor.
Principles of Business Management and Entrepreneurship ★
841103 Level: 3 Credits: 1.0
SCED: 12055
This course provides a foundational understanding of the role of business in a global society, American business as a dynamic process, forms of business ownership, management concepts, marketing, production and distribution, accounting and finance, human resources, and administrative, legal, and administrative services. 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.

Money Management: Consumer and Personal Finance ★
844103 Level: 3 Credits: 1.0
SCED: 19262
Prerequisite: Junior or senior status
In Consumer and Personal Finance, students develop skills in a variety of business applications, which apply to personal finance and explore consumer applications that will enable them to be successful in realistic settings that they will encounter as an adult. Students apply problem-solving skills to personal transactions and acquire basic money management skills. Topics include, but are not limited to: banking services, budgets, car and personal loans, checking accounts, consumer protection, credit cards, housing options, insurance, investment opportunities, job applications, money management, retirement planning, saving accounts, and tax filing.

Principles of Accounting and Finance ★
833123 Level: 3 Credits: 1.0
SCED: 12104
This course provides students a foundational understanding of how systematic records form the basis for business decisions. Students study the accounting cycle and apply the principles to managing a business. This is the second of two foundation courses required for all programs of study in the Business Management and Finance Career Cluster and is essential to all pathways.

Please see pages 72-75 for additional business courses.
English

English Progression

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 9</td>
<td>English 9</td>
</tr>
<tr>
<td>Grade 10</td>
<td>English 10</td>
</tr>
<tr>
<td>Grade 11</td>
<td>English 11 - American Literature</td>
</tr>
<tr>
<td>Grade 12</td>
<td>English 12 - British Literature*</td>
</tr>
</tbody>
</table>

*Upon teacher recommendation, students may substitute AP English Literature & Composition, College Writing, World Literature, Fundamentals of English I or Fundamentals of English II as their fourth year English credit.

English 9 ◆ ☰
211103  Level: 3  Credits: 1.0  SCED: 01001

Students are taught the characteristics of the short story, nonfiction, poetry, the novel and drama. In addition, they study the characteristic structure of each genre - the structure of the short story, nonfiction, the novel, and the three act or five act play. They also study the poets' use of poetic structure and language. All students are required to read and report on four full-length works per semester. Language conventions are taught as needed through writing. Students practice speaking and listening skills through a variety of activities. They give oral reports on their readings, and they work extensively with response partners or in small groups during the prewriting and revision stages of writing lessons.

This course prepares students for the Partnership for Assessment of Readiness for College and Careers (PARCC) 9 assessment.

English 10 ◆ ☰
212103  Level: 3  Credits: 1.0  SCED: 01002
Prerequisite: Satisfactory completion of English 9

Students explore themes in literature, points of view, symbolism, characterization, irony, and literary language. In exploring each of these aspects of literature, students read a variety of genre - short story, nonfiction, drama, poetry, and the novel. Additionally, students are required to read four full-length works each semester. Language conventions are taught as needed through writing. Vocabulary development is directly related to the literary selections. Writing assignments are made in the context of the writing process. Students practice skills in speaking and listening through a variety of classroom activities.

This course prepares students for the Partnership for Assessment of Readiness for College and Careers (PARCC) 10 assessment.

English 11 - American Literature ◆ ☰
213103  Level: 3  Credits: 1.0  SCED: 01054
Prerequisite: Satisfactory completion of English 9 and English 10

Students in American Literature explore the literature of the United States from colonial times to the present. The selections are studied in terms of how they affect and are affected by the social and historical climate. In addition, students read a variety of literary genre: essay, poetry, and short story. They read to interpret, to evaluate, and to expand vocabulary. Students review a variety of ways to write sentences (sentence combining). They progress from one paragraph, three paragraph, and five paragraph papers with the culminating activity being a research paper. Students will also practice speaking skills through a variety of activities.

This course prepares student for the Partnership for Assessment of Readiness for College and Careers (PARCC) 11 assessment.

26 ◆ - Weighted Class  ■ - Dual Enrollment Course  ☰ - State Assessed Course
English 12 - British Literature ♦
214103   Level: 3   Credits: 1.0
SCED: 01056
Prerequisite: Satisfactory completion of English 9, English 10 and English 11 – American Literature

British literature is the basis of this curriculum. It is a historical survey starting with Anglo-Saxon literature, proceeding through Medieval, Renaissance, Puritan, 17th Century, 18th Century, Romantic, Victorian, and 20th Century writers. The literature used as a departure point for a variety of writing exercises. Writing is the direct result of ideas encountered in literature. Instruction in language and grammatical skills is systematically provided. Usage and fundamental communication skills are reviewed. Informal speaking skills are the main thrust of classroom speech instruction. Because this could be the last formal educational situation for many of our students, the primary thrust of the language instruction is clear communications.

Wor-Wic Community College Developmental English Course

The following English transition course is intended to support students who are working towards earning the College and Career Ready Status. This course is taught in the WCPS High Schools under a partnership arrangement with Wor-Wic Community College. It is not a dual enrollment course as these courses are non-credit bearing courses.

College Literacy: Reading and Writing ♦
English 097
211023   Level: 3   Credits: 1.0
SCED: 01996
Prerequisite: Students determined not to be college and career ready by their grade 11 PARCC English scores.
(Note: This is a 12th grade dual enrollment course with Wor-Wic Community College that is intended for students determined not yet to be college and career ready at the end of the 11th grade as determined by their grade 11 PARCC English scores.)

This transition course is for 12th grade students who were not identified as on track for college and career readiness by the end of the semester of their 11th grade year as determined by their grade 11 PARCC English scores. This course is designed to prepare students for ENG 101 and other college reading and writing experiences. Areas of instruction include vocabulary, reading comprehension, punctuation, grammar and sentence structure, as well as paragraph and essay writing. It is specifically designed for students who need both ENG 095 and ENG 096, and it fulfills the requirements of both of these courses. Group and individual instruction are provided. Students are placed in this course as a result of their reading and writing diagnostic assessment scores or they can enroll on their own. My Skills Lab is being used as a supplementary site in this course.

Upon completion of this course, students must achieve a 75% average in the course, which includes the final exam.
A Departmental Academic Elective does not satisfy the English graduation requirement. This course counts toward graduation requirements as an elective only. The SAT Prep/College Research course is counted in determining honor roll/scholastic achievement status.

**Introduction to Literature**  
212221  Level: 1  Credits: 1.0  
SCED: 01068

Introduction to Literature is a research-based reading program that is designed for students who need to improve their basic reading skills. The course addresses the essential elements: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. During the course, students are constantly engaged as they rotate through four different stations. The students participate in a whole-group discussion format, receive individualized instruction in a small group setting, participate in interactive software, and are provided time for individual reading. This program provides students with the tools to celebrate reading while they develop and enhance their comprehension.

This course is for elective credit only. It does not satisfy the English graduation requirement.

**World Literature ✦**  
221113  Level: 3  Credits: 1.0  
SCED: 01058  
Recommendation: Satisfactory completion of English 9 and 10

The study of world literature focuses on an awareness and understanding of various world cultures through the reading and analysis of short stories, poems, and plays. The course is study built on the various genres with an emphasis on universal themes in literature. Students see commonalities in themes from the Mediterranean, Europe, Africa, Asia, the South Pacific, South and Central America, North America, and Great Britain. In addition, students learn about the lives of various authors and how their lives impacted their writing. Students are required to read four full-length works that represent four geographical areas.

The format of the class is student-centered discussion along with essay and personal and reflective writing. Students are required to keep a writing journal.

Students practice skills in speaking and listening through a variety of classroom activities: discussion, group work, research and reports on required reading, and interpretive reading on assigned works. Research papers explore the commonalities in themes from various geographical areas.

Language conventions are taught as needed through writing. Vocabulary development is directly related to the literary selections.

**Communications: Legal Interns ✦**  
220193  Level: 3  Credits: 1.0  
SCED: 01155

This course offers a broad survey of a variety of communications arts via integration with elements of the legal system. Some of the skills covered will include: interpersonal communications, nonverbal communications, speech and listening skills, informed impromptu speaking, lucid relation of complex ideas and written communication. Additionally, students will learn how to conduct a direct line of questioning, facilitate a cross-examination, deliver an opening statement, deliver a closing statement,
raise an objection and respond to an objection – all verbally and while maintaining professional decorum with relation to tone and body language.

Students will have an opportunity to apply some of these skills through regular meetings in front of a local lawyer and/or judge and peers in a “live” environment at local courthouses. Furthermore, students will write a legal analysis of case law relevant to their interests and deliver an oral presentation based upon that analysis (similar to a Supreme Court brief). Students in this course should have a desire to improve their public speaking skills and a willingness to hone those skills in the rapid-fire environment of controlled debate.

Advanced Placement English Literature and Composition ♦
214104 Level: 4 Credits: 1.0
SCED: 01006
Prerequisite: Satisfactory completion of American Literature and British Literature

Advanced Placement Literature and Composition is a course emphasizing the development of skills in critical reading of imaginative and discursive literature and in writing about literature and related ideas. It is designed for students capable of doing college level work in English while they are in secondary school, who are willing to devote the energy necessary to complete a course more rigorous and demanding than other high school English courses designed for the college bound student.

Because of the rigorous demands of this course, students are expected to devote as much time as necessary to keep current with class assignments and homework. The course requires extensive out-of-class reading.

This course is designed to prepare students to take an advanced placement test and earn up to two semesters of college credit in English. Prior to the first day of class, two/three major outside readings may be required.

College Writing ♦
215103 Level: 3 Credits: 1.0
SCED: 01996
Prerequisite: Satisfactory completion of three Level 3 English courses

College Writing is a course designed to help students develop formal college-level writing skills by emphasizing the writing process to organize ideas logically and coherently. Students will write expository and persuasive essays with attention to not only content, but grammar, usage, punctuation, mechanics, diction, and sentence structure. In addition, students will gain knowledge of electronic search procedures for research purposes and apply the rules of MLA documentation. Students may take the Advanced Placement English Language and Composition exam offered by The College Board.

Fundamentals of English I (DE) ♦
215114 Level: 4
Credits: 1.0 HS Credit / 3.0 Wor-Wic Credits
SCED: 01101
Prerequisite: Satisfactory completion of three Level 3 English courses

This dual enrolled course is designed to help students develop their college-level writing skills with an emphasis on the writing process. This course includes an introduction to research skills. Students write summary assignments and a series of essays in various modes, culminating in an argumentative research paper. Students must earn a “C” or better in this course in order to enroll in Fundamentals of English II (DE). This course may not be offered at all schools.

Fundamentals of English II (DE) ♦
215124 Level: 4
Credits: 1.0 HS Credit / 3.0 Wor-Wic Credits
SCED: 01149
Prerequisite: Satisfactory completion of Fundamentals of English I

This dual enrolled course continues to help students develop their college-level writing skills. Students are introduced to the study of literature (prose, poetry, fiction and drama). Students integrate outside sources with their own ideas in written arguments. They also refine their research and documentation skills. This course may not be offered at all schools.

SAT Prep/College Research ♦
213123 Level: 3 Credits: 1.0
SCED: 01203

In this course, college-bound students are provided with specific information in skills necessary to be successful on the SAT. Students are taught how to attack the test questions, are provided with the kinds of questions on the test, and are given practice in taking the SAT. At the completion of the course, students are encouraged

♦ - Weighted Class  ■ - Dual Enrollment Course  ○ - State Assessed Course
to take the SAT at the first opportunity. After students have taken the SAT, they will work on individually prescribed skills that may include conducting research, researching colleges, writing the college essay, and learning successful study skills.

**Creative Writing I**

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
<th>Credits</th>
<th>SCED</th>
</tr>
</thead>
<tbody>
<tr>
<td>220123</td>
<td>3</td>
<td>1.0</td>
<td>01104</td>
</tr>
</tbody>
</table>

The Creative Writing course includes traditional and non-traditional writing in various genres. The class receives practice in critiquing and being critiqued. In general, Creative Writing is a class that requires thinking skills and the willingness to share one’s work.

Creative Writing I is a prerequisite for Creative Writing II. This is a class intended to instruct and inspire.

**Creative Writing II**

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
<th>Credits</th>
<th>SCED</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>220133</td>
<td>3</td>
<td>1.0</td>
<td>01104</td>
<td>Satisfactory completion of Creative Writing I</td>
</tr>
</tbody>
</table>

Creative Writing II students must have successfully completed Creative Writing I. This class is intended for the serious writer. Assignments are more sophisticated than Creative Writing I with a spotlight on possibilities in the writing world. Creative Writing II students might broadcast special occasion readings, conduct a cross county workshop, serve as mentors to Creative Writing I students, and produce a literary magazine. If circumstances permit, students will participate in “class-to-work” internship.

This class is for a motivated wordsmith who wants to develop a style and consider a career direction.

**Introduction to Publications**

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
<th>Credits</th>
<th>SCED</th>
</tr>
</thead>
<tbody>
<tr>
<td>220143</td>
<td>3</td>
<td>1.0</td>
<td>11101</td>
</tr>
</tbody>
</table>

This course is designed as an introduction to the skills and knowledge needed to create a quality publication, including a school newspaper, an on-line school paper and a yearbook. Students learn about the legality, responsibility, history and philosophy of our evolving media. Students learn to write for different purposes and audiences, differentiate between, define and write feature articles, news articles, sports stories and editorials.

Students learn the difference between writing for a yearbook and writing for a scholastic news publication. Students learn the basics of digital photography, including how to take effective photos, how to legally adjust and crop photos for publication, how to use photos to enhance layout. The course culminates with experiences in the technical production of a school paper, using publication software to layout pages.

**Newspaper Production**

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
<th>Credits</th>
<th>SCED</th>
</tr>
</thead>
<tbody>
<tr>
<td>220153</td>
<td>3</td>
<td>1.0</td>
<td>11104</td>
</tr>
</tbody>
</table>

Prerequisite: Satisfactory completion of Introduction to Publications

In this course, students apply skills and knowledge to create a quality newspaper. Students understand, accept, and apply the legal responsibilities of ethical journalism that are vital to a free and democratic society.

Students gain practical knowledge about page layout; advertising design; digital photography and editing; interviewing, researching, writing and editing skills for news, features, sports, and editorial articles. Students learn a variety of computer skills including word processing; creating page designs with sophisticated software programs; enhancing page layout with font choices and graphics; taking and editing photographs.

The class is activities-based and product-oriented, and students are involved in every aspect of publication. Students earning credit in this class develop critical thinking, reading, and writing skills essential for success beyond high school.

**Mythology**

<table>
<thead>
<tr>
<th>Code</th>
<th>Level</th>
<th>Credits</th>
<th>SCED</th>
</tr>
</thead>
<tbody>
<tr>
<td>220163</td>
<td>3</td>
<td>1.0</td>
<td>01064</td>
</tr>
</tbody>
</table>

This course introduces students to classical mythology with an emphasis on the Greek, Roman and Scandinavian stories about gods, heroes, creation, love and other universal emotions and conflicts. Students read and discuss The Iliad and The Odyssey, various myths, folk tales and plays. Selections will be examined to discuss their original contexts, their connections to Western civilization and modern artistic and literary usages.

Students will read independently and in groups to analyze the selections and to discuss content critically. They will listen to selections and analysis of selections by scholars, the teacher and their peers. Students will outline, summarize, and
critique material to develop a core understanding of content knowledge.

Individual and group (small and large group) activities are employed to analyze and discuss the elements of myths and other selections; students apply these interpretations by creating a product to showcase their analyses. Projects include analyzing and retelling selections in writing, in presentation/production, in scrapbook memorabilia or other media formats. Activities and are designed to develop reading, writing, analysis, speaking and listening skills.

**Yearbook Production ♦**
220173 (year long) Level: 3 Credits: 1.0  
221173 (Fall)  
222173 (Spring)  
SCED: 11104

This class is directly responsible for the production of the high school yearbook. This class teaches students the basic principles of magazine style publication. Students gain practical knowledge of layout and advertising design and production; photography; photo editing; and research, interview, writing, and editing techniques for articles. Students also learn a variety of computer skills including: word processing, data base construction and management, and camera-ready graphics production techniques.

The class is activities based and product oriented. Students are directly involved in every aspect of publication production from planning to advertising sales, to actual production and even sales and distribution. Students earning credit in this class will have a sound knowledge base for finding employment in a variety of publications occupations and their related fields.

**Seminar in Literature**
214213 Level: 2 Credits: 1.0  
SCED: 01099

This elective class would focus on one of a variety of topics included but not limited to Film Studies, Shakespeare and Elizabethan Drama, and Short Stories.

**Latin I ♦**
261133 Level: 3 Credits: 1.0  
SCED: 06301

English language development owes much to the Latin language and the Roman culture. Over fifty percent of English vocabulary derives from Latin root words. Latin I is an introductory course that emphasizes Latin root words to improve vocabulary, grammar, and spelling. Students will gain a perspective of Roman culture. Knowledge of Latin vocabulary is applicable to a variety of disciplines including biology, anatomy, psychology, history, English, and college-level reading. Latin I does not satisfy the world language graduation requirements.

**Latin II ♦**
262133 Level: 3 Credits: 1.0  
SCED: 06302  
Prerequisite: Latin I

At the intermediate level, students continue the development of the previous skills. Students will expand their study of word derivation. They will also expand their understanding of the similarities and differences among languages and cultures. Latin II does not satisfy the world language graduation requirements.

**Freshman Seminar/Enrichment ♦**
900203 Level: 3 Credits: 1.0  
SCED: 22102

*May not be offered in all schools*

The seminar class is designed to provide smooth transition from middle to high school through a basic orientation to high school life. Topics covered will include study strategies, note taking methods, test-taking skills, time management, social skills, conflict management, and career decision planning. To meet the needs of individuals and small groups, this course will provide opportunities for students to refine their skills as they build a foundation in major curriculum areas. Assistance will be given to help students meet success in their currently enrolled classes and/or challenge students beyond the curriculum especially in the area of PSAT and SAT preparation.
Family Consumer Science

General Family Consumer Science
151102  Level: 2  Credits: 1.0
SCED: 19251

Family Consumer Science units of study are: interpersonal relationships, consumer education, personal finance, foods and nutrition, clothing and textiles, college and career exploration, and time management.

Nutrition Science
152102  Level: 2  Credits: 1.0
SCED: 19254

This course is designed to teach skills in planning, preparing, and serving meals attractively. Subject areas include: diet and disease; weight control and nutrition; sanitation and safety; food buying and storage; consumer education and careers. This course may not be available at all schools.

Family and Child Care
153102  Level: 2  Credits: 1.0
SCED: 19255

This course is designed to teach students about the importance of communication among family members and peers; self-esteem; and personal relationships. Students study their own role in the different types of families and the family's influence on society.

In Child Care, emphasis is placed on acquiring skills needed to care and guide the physical, intellectual, social and emotional needs of preschool children. Students will receive an overview of fetal development. Each student has the opportunity to observe and work with children. Students will learn to be aides in child care centers, nursery schools, Head Start programs, and elementary schools, including legal responsibilities regarding child abuse and neglect. Job seeking, employment skills, and career development activities are included. This course may not be available at all schools.

Singles Living
154102  Level: 2  Credits: 1.0
SCED: 19257

This course, recommended for juniors and seniors, helps students learn responsibilities when "living on their own". Units of study include: getting an apartment; personal finance (including budgeting, savings, utilities, transportation, taxes, and insurance); meal planning; clothing care; interior design; personal relationships; college and career planning and health care. This course may not be available at all schools.
Health & Family Life Education

Health/Family Life Education is a survey of the structure, function, and wellness of the human body. Principles of good health and good health practices are examined. Students examine their lifestyles and make personal goal decisions to attain and maintain optimum health.

The course focuses on nine major concepts: personal health and wellness, personal and social skills, tobacco, alcohol and other drugs, nutrition, safety, relationships, personal care and body systems, life cycle, and family life and human development. This course meets the Health Education graduation requirement.
The Maryland State Department of Education (MSDE) requires students to enroll a mathematics course each year of high school and earn at least three mathematics credits to graduate. Two of the credits must be earned from Algebra I and Geometry. To meet the Algebra I graduation requirement, a student must pass Algebra I and earn a score of a 3, 4, or 5 on PARCC Algebra I Assessment. Students must enroll in a course in mathematics each year of high school regardless of whether or not a math credit was earned while in middle school.

The University System of Maryland (USM) Board of Regents requires students to earn (4) mathematics credits, including Algebra I, Geometry, Algebra II and another course that uses non-trivial algebra. If Algebra II was completed prior to 12th grade, then he/she must take a course that is intensive in algebra and expands on algebra foundations developed during Algebra II. If a 5th or 6th year student does not need a math credit to graduate, then a math course is not required in year five or six.
**WCPS High School Math Progression by Year**

### Sample Mathematics Progressions by Year

<table>
<thead>
<tr>
<th>Grade &amp; Semester</th>
<th>Plan A</th>
<th>Plan B</th>
<th>Plan C</th>
<th>Plan D</th>
<th>Plan E</th>
<th>Plan F</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Fall</td>
<td>Found. of Algebra(^1)</td>
<td>Found. of Algebra(^1)</td>
<td>Algebra I Part 1(^1)</td>
<td>Algebra I Part 1(^1)</td>
<td>Algebra I</td>
<td>Geometry (Alg. 1 in Gr. 8)</td>
</tr>
<tr>
<td>9th Spring</td>
<td>Pre-Algebra</td>
<td>Pre-Algebra</td>
<td>Algebra I Part 2</td>
<td>Algebra I Part 2</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>10th Fall</td>
<td>Algebra I Part 1(^1)</td>
<td>Algebra I</td>
<td>Bridge to Geometry Part 1(^1)</td>
<td>Geometry</td>
<td>Geometry</td>
<td>Algebra II</td>
</tr>
<tr>
<td>10th Spring</td>
<td>Algebra I Part 2</td>
<td>Geometry Part 2</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>11th Fall</td>
<td>Bridge to Geometry Part 1(^1)</td>
<td>Geometry</td>
<td>Int. Algebra Prep</td>
<td>Alg. II or Int. Alg. Prep</td>
<td>Algebra II</td>
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<tr>
<td>11th Spring</td>
<td>Geometry Part 2</td>
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<td>Alg. II or Transition Course</td>
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*Please note, a motivated student may accelerate his/her pathway by scheduling two math courses per year when possible. Also, depending on student performance and course prerequisites, a student can move to a different column.*

### *Math Courses After Meeting High School Requirements of Algebra I and Geometry*

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<td>WWCC Math 122: Precalculus 2</td>
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<td></td>
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</tbody>
</table>

\(^1\) Elective Credit

- **- Weighted Class**
- ■ - Dual Enrollment Course
- ☉ - State Assessed Course
Foundations of Algebra
411112 Level: 2 Credits 1.0
SCED: 02049

This fall semester course is a precursor to Pre-Algebra for students who need review of elementary and middle school mathematics concepts. The course is designed to be highly individualized and data-driven so differentiated instruction can be provided to address each student’s unique pre-algebra skills deficits. Students studying Foundations of Algebra receive an elective math credit that does not count towards the yearly math course requirement; the math credit is awarded for successful completion of Pre-Algebra. Students are expected to enroll in Pre-Algebra during the spring semester following completion of this course.

Pre-Algebra
410102 Level: 2 Credits: 1.0
SCED: 02051

This spring semester course, focuses on proportional reasoning with rates, ratios, and linear relationships and functions. Visual models bring coherence to instruction, making abstract concepts more concrete. Completion of Foundations of Algebra and Pre-Algebra provides the conceptual understanding and procedural skills necessary to be successful in Algebra I.

Algebra I ◆ ◆
401113 Level: 3 Credits: 1.0
SCED: 02052

Study focuses on five critical areas: 1.) Understanding and investigating relationships between quantities and reasoning with equations; 2.) Understanding and applying linear and exponential relationships; 3.) Investigating trends and modeling with descriptive statistics; 4.) Performing arithmetic operations on polynomial expressions, solving equations, inequalities, and systems of equations; and 5.) Using properties of rational and irrational numbers to develop an understanding of quadratic functions. Through real world performance tasks, students apply knowledge and focus on mathematical reasoning and communication.

WCPH middle and high school students who pass Algebra I and the PARCC Algebra I assessments attain the graduation requirement. The middle school course grade is included in the high school grade point average (GPA) unless a student opts to retake Algebra I in their freshman year of high school (highest grade will be included in GPA).

Algebra I, Part 1 ◆ (Fall Semester)
401123 Level 3 Credits: 1.0
SCED: 02053

Algebra I, Parts 1 and 2 together cover the same topics listed under Algebra I, but the topics are distributed over two semesters for a pace and depth of subject more suited for individual and group explorations of topics. Students should enroll in Algebra I, Parts 1 (fall semester) and 2 (spring semester) in contiguous semesters to avoid experiencing gaps in learning. Completion of Algebra I, Part 1 without completion of Algebra I, Part 2 will not fulfill the pre-requisite for enrolling in Geometry, nor will it satisfy the Algebra I graduation requirement. Students earn a math elective credit that does not count towards the yearly math course requirement; the math credit is awarded for successful completion of Algebra I, Part 2. Teachers teaching Algebra I, Part 1 must also be assigned to teach the same students in Algebra I, Part 2.

Algebra I, Part 2 ◆ ◆
401133 Level 3 Credits: 1.0
SCED: 02054

This spring semester course is a continuation of Algebra I, Part 1. Students will take the Algebra I PARCC assessment upon completion of Algebra I, Part 2. The high school graduation requirement for Algebra I is met by earning a passing grade in this course and on the PARCC Algebra I Assessment.

High School Geometry ◆ ◆
412113 Level: 3 Credits: 1.0
SCED: 02072
Prerequisite: Satisfactory completion of Algebra I or Algebra I, Part 2.

This course expands on the conceptual foundations students acquired in middle school and in Algebra I by focusing on deductive and inductive reasoning skills and constructing viable mathematical arguments to support geometric principles. Deductive reasoning is introduced through the study of postulates and theorems applied to a variety of informal and formal proof formats. Units include rigid transformations, triangle congruence, constructions, similarity, right triangle trigonometry, Laws of Sines and Cosines, coordinate geometry, circles, and conics.
Throughout the course, students connect geometry with algebra through justifying and deriving various formulas (circumference, area, and volume), working with special triangles, and slopes of parallel and perpendicular lines. Students complete real world tasks to apply and communicate their knowledge of geometry, analytic geometry, and trigonometry. Completion of Geometry satisfies one of the high school graduation mathematics requirement and is a prerequisite for enrolling in Algebra II.

**Bridge to Geometry ♦ ⊗**

412233 Level 3 Credits: 1.0
SCED: 02074

Prerequisite: Satisfactory completion of Algebra I or Algebra I, Part 2.

This fall semester course is intended for students who need more support to develop the algebraic foundation needed to be successful in Geometry and subsequent math courses. Algebra concepts include linear functions, quadratic functions, and exponential functions. Geometry, Parts 1 and 2 together cover the same topics listed under Geometry, but the topics are distributed over two semesters for a pace and depth of subject more suited for individual and group explorations of topics. This course prepares students to retest on PARCC Algebra I Assessment. Students should enroll in Geometry, Parts 1 and 2 in contiguous semesters to avoid experiencing gaps in learning. Completion of Geometry, Part 1 without completion of Geometry, Part 2 will not fulfill the prerequisite for enrolling in Algebra II, nor will it satisfy the geometry graduation requirement. Students earn a math elective credit that does not count towards the yearly math course requirement; the math credit is awarded for successful completion of Geometry Part 2. Teachers teaching Geometry, Part 1 must also be assigned to teach the same students in Geometry, Part 2. This course may not be offered at all schools.

**Geometry Part 2 ♦ ⊗**

412143 Level 3 Credits: 1.0
SCED: 02079

Prerequisite: Completion of Geometry Part 1

This spring semester course builds on the geometry concepts learned in Geometry Part I. Completion of Geometry Part 2 satisfies one of the high school graduation mathematics requirement and is a prerequisite for enrolling in Algebra II. This course may not be offered at all schools.

**Sports Statistics**

411113 Level 3 Credits: 1.0
SCED: 02205
Prerequisites: High School Algebra I Requirement Met and High School Geometry *(Not for students who have earned credit for Elementary Statistics or Data Analysis)*

This course will introduce students to the methods used in statistics through the use of sports data. Each topic will begin with a real-life statistical question and then students will learn how to collect appropriate data, how to analyze the data, and how to make reasonable conclusions. The primary focus of the class will be to teach students the basic principles of statistical reasoning. Use of technology, including online applets and the graphing calculator will be prominent in the course. Students will gain insight into the preparation of reports and will be better able to interpret the figures and meaning of statistics. This course may not be offered at all schools.

**Algebra II ♦ ⊗**

401143 Level 3 Credits: 1.0
SCED: 02056
Prerequisites: High School Geometry or Geometry Part 2, and Algebra I or Algebra I Part 2

Building on students’ knowledge of linear, quadratic, and exponential functions, this course includes polynomial, rational, and radical functions. Students explore similarities between the system of polynomials and the system of integers. As students work closely with expressions that define functions, they expand and hone their abilities to model situations and solve equations including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Building on prior work with functions and trigonometric ratios and circles, students use the coordinate plane to extend trigonometry to model periodic phenomena. Topics of study focus on: 1.) Extending the study of functions to polynomial and other nonlinear functions (square root, cube root, piecewise defined, step, absolute value, rational, exponential, logarithmic, and trigonometric); 2.) solving nonlinear equations; 3.) using probability to interpret data and make decisions; and 4.) making inferences and justifying conclusions using data. Students complete real world performance tasks where they apply knowledge and focus on mathematical reasoning and communication.

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11 Elective Credit

♦ - Weighted Class  ■ - Dual Enrollment Course  ⊗ - State Assessed Course

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Algebra II is an expectation of the University System of Maryland (USM).

**Precalculus ♦**

424203 Level: 3 Credits: 1.0
SCED: 02110
Prerequisite: Completion of Geometry and Algebra II
Recommendation: Algebra II Grade of A or B and PARCC Algebra II score of 4 or 5 or CCR Status earned.

This course bridges mathematics skills beyond those studied in Algebra I, Geometry and Algebra II, and continues a student’s mathematical progression towards the study of calculus. The Common Core State Standards-Mathematics document refers to Precalculus as the “4th course” in a high school program. Emphasis in this course is placed on a multi-representational approach to solving problems which are graphical, numerical, analytical, verbal and technological in nature. Topics in this course include analysis of families of functions, exponential, logarithmic, polar, and transcendental functions; real and complex numbers, polynomial and rational functions; trigonometric functions and analytical and parametric equations, and concepts associated with the derivative and integral in calculus. Students are required to use a TI-83 or TI-84 graphing calculator.

**Data Analysis/Statistics ♦**

411103 Level: 3 Credits: 1.0
SCED: 02201
Prerequisite: Satisfactory completion of Geometry and Algebra II or Algebra II, Part 2.

Course topics include concepts and applications associated with the study of statistics and data analysis. Descriptive statistics involve methods of organizing, representing, and summarizing information from samples or populations. Inferential statistics involve methods of using information from a sample to draw conclusions regarding the population. The following topics are included: random variables, probability laws, counting techniques, binomial and normal distributions, applications to the Central Limit Theorem, confidence intervals and tests of statistical hypotheses involving the mean, median and proportions. Parametric and non-parametric statistics are introduced. This course may not be offered at all schools.

**Elementary Statistics (DE) ♦**

400204 Level: 4
Credits: 1.0 HS Credit / 3.0 Wor-Wic Credits
SCED: 02209

Prerequisite: Satisfactory completion of Geometry and Algebra II & Accuplacer Scores/Grades in compliance with WWCC Requirement

This college level, dual enrollment course provides an opportunity for students to investigate elementary statistics through a critical examination of its subjects and applications. Topics from descriptive statistics include data organization, expectation and measures of variation. The following topics are included: random variables, probability laws, counting techniques, binomial and normal distributions, applications of the Central Limit Theorem, confidence intervals and tests of statistical hypotheses involving the mean, median and proportions. Parametric and non-parametric statistics are introduced. This course may not be offered at all schools.

**Math 121: Precalculus 1 ♦**

424301 Level: 4 Credits: 1.0 HS Credit
SCED: 02110
Prerequisite: Satisfactory completion of Geometry and Algebra II

This dual course covers the advanced algebra. Topics include solving, graphing and modeling with linear, quadratic, polynomial, rational, radical, exponential, logarithmic equations and inequalities. Basic conic sections, matrices and linear programming topics are also included. This course may not be offered at all schools.

**Math 122: Precalculus 2 ♦**

424313 Level: 4 Credits: 1.0 HS Credit
SCED: 02110
Prerequisite: Math 121: Precalculus 1

This course includes trigonometry and advanced algebra. Trigonometric topics include angle measurement, definitions of the six trigonometric functions from the right triangle and unit circle perspectives, graphs, identities, inverses and equations. Algebraic topics include polar coordinates, parametric equations, and a review of functions and graphs. A problem solving approach utilizes applications and a graphing calculator throughout the course. This course may not be offered at all schools.

**Math 121: Precalculus 1(DE) ♦**

700046 Level: 4 Credits: 1.0 HS Credit/3.0 Wor-Wic Credit
SCED: 02110
Prerequisite: Satisfactory completion of Geometry and Algebra II, and Accuplacer Scores/Grades in compliance with WWCC Requirement

This dual enrollment course covers the advanced algebra. Topics include solving, graphing and
modeling with linear, quadratic, polynomial, rational, radical, exponential, logarithmic equations and inequalities. Basic conic sections, matrices and linear programming topics are also included. This course may not be offered at all schools.

**Math 122: Precalculus 2 (DE)**

700047  Level: 4  Credits: 1.0 HS Credit / 4.0 Wor-Wic Credit  
SCED: .02110  
Prerequisite: Satisfactory completion of Math 121: Precalculus 1

This dual enrollment course includes trigonometry and advanced algebra. Trigonometric topics include angle measurement, definitions of the six trigonometric functions from the right triangle and unit circle perspectives, graphs, identities, inverses and equations. Algebraic topics include polar coordinates, parametric equations, and a review of functions and graphs. A problem solving approach utilizes applications and a graphing calculator throughout the course. This course may not be offered at all schools.

**Calculus**

424103  Level: 3  Credits: 1.0  
SCED: 02121  
Prerequisite: Satisfactory completion of Precalculus or Math 121: Precalculus 1 and Math 122: Precalculus 2

Calculus is designed to provide students with initial preparation for the Advanced Placement Calculus AB course or a Calculus course in college. Often students interested in STEM majors or careers enroll in calculus. Topics of study include extended work with functions, concepts associated with limits their properties and applications, differentiation, and application of differentiation in real-world settings.

**Advanced Placement Calculus AB**

424104  Level: 4  Credits: 1.0  
SCED: 02124  
Prerequisite: Satisfactory completion of Calculus

Advanced Placement Calculus AB is a college level course with topics, which include functions, limits and continuity, derivatives, integration, and the applications of these topics. The course is designed to prepare the student for the College Board’s Advanced Placement Calculus AB test and possibly earn credit in college level Calculus I.

**Advanced Placement Calculus BC**

424114  Level: 4  Credits: 1.0  
SCED: 02125  
Prerequisite: Satisfactory completion of Advanced Placement Calculus AB

Advanced Placement Calculus BC is a rigorous extension of the work begun in Advanced Placement Calculus AB and covers additional topics including vector functions, parametrically defined curves, polar functions, and convergence of sequence and series. The course is designed to prepare the student for the College Board’s Advanced Placement Calculus BC test and possibly earn credit in college level Calculus II.

**Advanced Placement Statistics**

434104  Level: 4  Credits: 1.0  
SCED: 02203  
Prerequisite: Satisfactory completion of Data Analysis/Statistics. Elementary Statistics (DE) does not satisfy this prerequisite. Students are encouraged to enroll in Precalculus to gain insights into logarithms needed for AP Statistics.

The purpose of the Advanced Placement Statistics course is to introduce students to major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. Students who successfully complete the course and pass an advanced placement test may receive college credit and/or advanced placement for a one-semester introductory college statistics course.

**Foundations of Computer Science**

462113  Level: 3  Credits: 1.0  
SCED: 10001  
Prerequisite: Must be in 12th Grade

This course introduces students to the field of computer science through an exploration of engaging and accessible topics. It is designed to focus on the conceptual ideas of computing and help students understand why certain codes or languages might be utilized to solve particular problems. Students develop the computational practices of algorithm development, problem solving and programming within the context of real-world problems. Students are introduced to topics such as interface design, limits of computers, and societal and ethical issues.

If this course is taken as a part of a CTE pathway, it cannot be used as a fourth-year math course for students in Grade 12. Completion of this course satisfies the requirement of a 4th year of mathematics. However, this course does not qualify as a course which will fulfill the 4th year of mathematics requirement for the University System of Maryland (USM).
Advanced Placement Computer Science A ♦
464104    Level: 4    Credits: 1.0
SCED: 10157
Prerequisite: Satisfactory completion of Computer Science Principles

This course is a more in-depth study of computer science specifically in the aspects of computing, including programming and algorithm design, computer system and data representation and information organization. In this course, the primary language used in advancing the students’ understanding of the application of computational thinking to real world problems is JAVA. This course is designed to prepare students to be successful in passing the AP Computer Science Test.

If this course is taken as a part of a CTE pathway, it cannot be used as a fourth-year math course for students in Grade 12. Completion of this course satisfies the requirement of a 4th year of mathematics. However, this course does not qualify as a course which will fulfill the 4th year of mathematics requirement for the University System of Maryland (USM).

Intermediate Algebra Prep ♦
401013    Level: 3    Credits: 1.0
SCED: 02069
Prerequisite: Satisfactory completion of Algebra I and Geometry.

This course is highly individualized to provide the 11th grade student with opportunities to address algebra and geometry skill deficits prior to moving onto Algebra II. A 12th grade student who is working towards the College and Career Ready Determination, may enroll in this course as a transition experience. Students study algebraic operations, expressions and equations with absolute value, polynomials, exponents, radicals, quadratic expressions, factoring, solutions of equations and inequalities including systems of equations, coordinate geometry, conics, locus of points, graphs of algebraic functions, translations, complex numbers, series and sequences, determinants, permutations and combinations, factorials and polygons, functions of degrees greater than 2, logarithms and inverse functions. As the final exam students will be (re)tested using the Accuplacer diagnostic placement test to assess their level of college and career readiness. Students found to be on track for college and career ready should enroll in Algebra II. Students needing further support should enroll in the appropriate community college developmental course taught in the high school. This course may not be offered at all schools.

College Preparatory Math Review ♦
454113    Level: 3    Credits: 1.0
SCED: 02993
Prerequisite: Satisfactory completion of Algebra I, Geometry and Algebra II by the end of the 11th grade with an 11th grade PARCC Algebra II determination of skills which are not yet college and career ready.

This fall semester 12th grade transition course is aligned to the redesigned SAT-I Math test. It is intended for students needing a 12th grade transition course and should not substitute for Precalculus for students pursuing more advanced studies in mathematics. Topics for College Prep Math Review include linear equations in two variables, systems of two linear equations in two variables, linear inequalities in one or two variables, ratios, rates, proportional relationships and units, percentages, one variable data using distributions and measures of center and spread, two variable data using models and scatterplots, probability and conditional probability, inference from sample statistics and margin of error, evaluation of statistical claims; observational studies and experiments derived from social studies and scientific sources, equivalent algebraic expressions, nonlinear equations in one variable and systems of equations in two variables, nonlinear functions, area and volume, lines, angles and triangles, right triangles and trigonometry, circles and complex numbers. To comply with 12th grade transition course requirements, students will be retested using the SAT-I Math to assess college and career readiness skills. This course may not be offered at all schools.
Wor-Wic Community College Developmental Mathematics Courses

The following math transition courses are intended to support 11th and 12th grade students who are working towards earning the College and Career Ready Status. These developmental courses provide students with a bridge for acquiring more advanced algebra skills. The courses are taught in the WCPS High Schools under a partnership arrangement with Wor-Wic Community College. They are not dual enrollment courses as these courses are non-credit bearing courses. The student receives a mathematics credit if the student has not earned the required 3 math credits for graduation. Completion of this course satisfies the requirement of a 4th year of mathematics. However, only Wor-Wic Community College Developmental Math 99 fulfills the 4th year of mathematics requirement for the University System of Maryland (USM).

Wor-Wic Community College Developmental Math 91 (taught at a Worcester County high school)

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<th>Credits</th>
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Prerequisite: 11th grader with an Accuplacer score consistent with WWCC placement in Math 91

This course reviews fundamental operations and applications of decimals, fractions, percent, ratio and proportions, and integers with an introduction to algebraic concepts. An emphasis is placed on developing solutions to word problems. This course includes mastery of whole numbers, integers, solving equations, using fractions and mixed numbers, decimals, square roots, percent, and graphing in two dimensions. These concepts are applied in problem solving activities.

Earning a 75% or higher in this transition course qualifies the student to enroll in Math 92 but does not deem the student as College and Career Ready

Wor-Wic Community College Developmental Math 92 (taught at a Worcester County high school)

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Prerequisite: 11th grader with an Accuplacer diagnostic placement score consistent with WWCC placement in Math 92 or earning 75% or greater in Math 91.

When possible, students who demonstrate ability for enrollment in Algebra II should enroll in Algebra II rather than Math 92.

Course content includes a review of real numbers and the real number system, linear equations and inequalities, exponents and polynomials, factoring, graphs, functions and matrices, solving systems of linear equations in two variables, and solving mathematic problems in multiple representations including graphically, algebraically, verbally, and through the use of technology.

Earning an overall 75% or greater in this transition course qualifies the student to enroll in some credit bearing mathematics courses at Wor-Wic Community College and deems the student as College and Career Ready.

Wor-Wic Community College Math 99 Intermediate Algebra

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Prerequisite: 11th grader with Accuplacer score consistent with placement in 99 or earning 75% or greater in Math 92.

This course includes a review of the real number system and its application to solving linear and quadratic equations. Topics also include graphing and solving systems of equations and inequalities. This course includes mastery of factoring quadratic expressions, manipulation of quadratic expressions and radical expressions and an introduction to logarithmic and exponential functions. These concepts will be applied in problem solving activities.

Earning an overall 75% or greater in this transition course qualifies the student to enroll in credit bearing mathematics courses at Wor-Wic Community College and deems the student as College and Career Ready. Successful completion of this course satisfies the fourth course requirement for University System of Maryland (USM)

◆ - Weighted Class  ■ - Dual Enrollment Course  ◎ - State Assessed Course
There is growing interest in the use of technology in classroom instruction in the form of media arts. It has gained even more momentum as a wide spectrum of creative activity in media arts has accelerated. While general instructional technology continues at all levels of public education, there are increasingly new and vigorous experiences in media arts which include cinema/film, television, radio, audio, video, the Internet, interactive and mobile technologies, video games/animation, transmedia storytelling, sound imaging design, virtual design, interactive design, as well as media-related printed books, catalogues, and journals.

**Communications-Media Arts**

220182  Level: 2  Credits: 1.0

SCEd: 05168

This course offers a broad survey of a variety of communications and media arts. The course will have a central focus on news media, video production, broadcast journalism, and media literacy. Units may include iMovie production, television studio operation, broadcast scriptwriting, copyright laws, journalistic styles, video equipment operation, and digital storytelling.

Students will gain hands-on experience with professional equipment and mobile technology. Students may produce daily video announcements and videos for school functions, utilizing techniques which are creative and journalistic.

Other media arts topics which may be explored include: interpersonal communications, nonverbal communications, interactive technologies, video games, storytelling, satellites, as well as media-related printed books, catalogues, and journals. Specific course content will align with existing state standards for media arts.
Naval Science is designated by the Chief of Naval Education and Training as a four-year (versus a four-semester) program and is intended to be taken one course per year in each of the four high school years, 9-12. Taking more than one Naval Science course in a school year is strongly discouraged and must have the prior approval of the Naval Science instructor before it will be allowed. Approval will not be granted to students starting Naval Science in their freshman year.

**Naval Science I ♦**
131103  Level: 3  Credits: 1.0  SCED: 09101

Naval Science I introduces students to the precepts of citizenship, the elements of leadership, and the value of scholarship in attaining life goals. This course is also designed to engender a sound appreciation of the heritage and traditions of the United States of America with a focus on the historical significance of sea power. An emphasis on the development, in each cadet/student, of a sense of pride in his/her community, school, unit, associates, and self is a predominant theme throughout the course. These elements are developed from a fundamental level.

**Naval Science II ♦**
132103  Level: 3  Credits: 1.0  SCED: 09102
Prerequisite: Satisfactory completion of Naval Science I or approval of instructor

Naval Science II builds upon the foundation begun during Naval Science I, to further develop the traits of leadership, citizenship, discipline, and self-confidence that form the basis of the Naval JROTC program. In addition to classroom exposure to leadership and management skills, the course examines U. S. Naval History from 1815 to World War I, and U. S. Government concepts that are related to a citizen's rights and responsibilities. The technical aspects of the course include ship construction, oceanography, navigation, small boat seamanship, and naval weaponry. As in Naval Science I, the themes of pride in self, community, and school will permeate the course. Simultaneously, service and leadership will be stressed. These elements are developed from the advanced level.

**Naval Science III ♦**
133103  Level: 3  Credits: 1.0  SCED: 09103
Prerequisite: Satisfactory completion of Naval Science II or approval of instructor

Leadership is the paramount topic in the Naval Science III course. In addition to continued stress being placed upon the Fundamentals of Democracy and U. S. Naval History, the students/cadets are introduced to the vital importance of military justice, international law, and national security. The course continues the instruction on Naval Science to include astronomy, meteorology, weather, navigation and maneuvering, and sea power. The course will include reading, writing, and practical exercises.

**Naval Science IV ♦**
134103  Level: 3  Credits: 1.0  SCED: 09104
Prerequisite: Satisfactory completion of Naval Science III or approval of instructor

Naval Science IV is the culmination of the Naval Science program. As in Naval Science III, leadership is the primary emphasis in Naval Science IV. It is a leadership lab course. Naval Science IV cadets (high school seniors) will attend class with new Naval Science I students and practice leadership skills during military drill periods under the close supervision of the instructors. During academic periods, Naval Science IV students will pursue a rigorous course of study in leadership techniques, effective communication, and group dynamics. Naval Science IV students are expected to be role models for all Naval Science students. The course will include reading, writing, and practical exercises tailored to both college and non-college bound students.
Marine Corps Junior ROTC

Leadership Education

Open to students of all grades, this course is designed to provide leadership education through the use of readings, classroom lectures, guided discussions and practical experience. The value and importance of self-discipline and individual responsibility as keys to success in life are stressed. The curriculum is composed of five major categories: Leadership, Citizenship, Personal Growth and Responsibility, Public Service and Career Exploration, and General Military Subjects. First year students are introduced to the 14 traits of leadership as well as the importance of team work in achieving group objectives. Those students who choose to return for a second, third, or fourth year of Leadership Education will study more advanced topics in leadership, with the focus of instruction shifting from classroom presentations to practical application as students are promoted in rank and demonstrate their leadership abilities while assigned to various billets within the cadet company organization.

The General Military Subjects category of the curriculum contains instruction and practical application in Close Order Drill (marching), physical fitness, and marksmanship (using Daisy air rifles). An understanding of the role of the military in a democratic society is developed through the study of U.S. military history, chain of command, organizational structures, and orientation trips to nearby military installations or historical sites.

Students will be issued cadet uniforms, which are worn one day each week. Students are also required to conform to Marine Corps grooming standards. Students must not have any physical or medical condition that precludes their participation in rigorous physical conditioning. Completion of this course does not obligate the student to military service.

Leadership Education I ♦
141103  Level: 3  Credits: 1.0
SCED: 09201
Note: Pocomoke and Snow Hill schools only

This course introduces the students to the fundamentals of leadership and discipline. Students are expected to master Marine Corps Junior ROTC unit organizational structure, cadet rank structure, an overview of Marine Corps history, and introductory leadership topics.

Leadership Education II ♦
142103  Level: 3  Credits: 1.0
SCED: 09202
Prerequisite: Satisfactory completion of Leadership Education I
Note: Pocomoke and Snow Hill schools only

Leadership instruction continues with such topics as the objectives of leadership, the eleven principles of leadership, and the role of officers and noncommissioned officers within the military. Map reading and land navigation, Naval terminology, and the study of Marine Corps history from 1775 to 1918 are presented in the General Military Subjects category. Job finding and application procedures are covered as part of Career Exploration. Participation in community service projects is encouraged. Mid-level leadership roles within the cadet company organization may be assigned to second year cadets. Extracurricular activities include Drill Team, Color Guard, and Marksmanship Team.

Leadership Education III ♦
143103  Level: 3  Credits: 1.0
SCED: 09203
Prerequisite: Satisfactory completion of Leadership Education II and junior or senior class membership
Note: Pocomoke and Snow Hill schools only

Leadership instruction progresses to such topics as the styles of leadership, the importance of inspections and evaluations, and conducting performance evaluations. General Military Subject topics include the organization of the Marine Corps, Marine Corps history during World War II, military medals and ribbons, the Uniform Code of Military Justice, and advanced topics in land navigation. State and Federal careers are explored as part of the Public Service component of the course, as well as the benefits of military service. Mid to upper-level leadership roles within the cadet company organization may be assigned to third year cadets. Extracurricular activities are as indicated previously.
Leadership Education IV ♦
145103 Level: 3 Credits: 1.0
SCED: 09204
Prerequisite: Satisfactory completion of Leadership Education III and junior or senior class membership
Note: Pocomoke and Snow Hill schools only

This course is designed to provide students with leadership application experience. Normally assigned to the highest-ranking positions within the cadet company organization, these Cadets serve as role models for younger Cadets. They assist the Marine instructors in conducting physical fitness training, drill, and uniform inspections. They plan, organize and conduct such events as the Marine Corps birthday ceremony, community service events, and a Mess Night. They will write a resume, research paper, and prepare and teach a lesson for a first year cadet class. Marine Corps history from the Korean War to the present is studied along with the organization of the Marine Air-Ground Task Force. Extracurricular activities are as indicated previously.

United States Military History ♦
146103 Level: 3 Credits: 1.0
SCED: 09999
Note: This course may not be offered in all schools.

This is a chronological survey course of United States Military History. A study will be made of the development of America’s military establishment from the colonial wars to the present and the impact of American military policy on international relations and domestic development. We will examine the influence of several aspects of American life that have had an impact on the development of the American military, i.e. economic, strategic, tactical, and technological. The fundamental objective of this course is to have students acquire sufficient knowledge and skills so as to better understand the role and impact that the U. S. military has on the American way of life. By increased knowledge, students will also develop a greater respect for and appreciation of the freedoms and liberties all Americans enjoy. This course is for Military Science credit only.
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**American Popular Music**

During this course, students will study composers, performers, and works of American Popular Music. Units are organized by decade from 1900 to the present. Students will examine the relationship that exists between the culture and history of the decade and its music. Each student will also be expected to choose particular styles of American Popular Music and complete research projects addressing the chosen styles. This course satisfies the fine arts requirement.

**Foundations of Music History**

Students enrolled in this course will complete a historical survey of musical styles from the earliest times to the present. This course is divided into six sections; The Ancient and Medieval works, the Renaissance, the 17th Century, the 18th Century, the 19th Century and the 20th Century and after. Students will participate in analysis, listening and discussion of music in a cultural context. Each student will be required to choose a particular composer from each of the units and complete a research project. This course may not be available at all schools. This course satisfies the fine arts requirement.

**Band**

Band emphasizes participation in all phases of instrumental music such as field shows, parades, concerts, school assemblies, festivals and community performances. All band members are eligible to audition for jazz ensemble, pep band and other smaller groups. This course may be repeated for credit. This course satisfies the fine arts requirement.

**Concert Choir**

Membership in Concert Choir is based on student interest and desire to participate in choral music. Emphasis is placed on performance of standard choral music. Students will develop the ability to understand, perceive, create, respond, and appreciate a variety of choral music. Students will participate in public performances such as concerts, holiday programs, and/or community functions. To be offered as a Level 3 course, the Concert Choir will need to represent the school in outside school functions, and be encouraged to audition for regional and/or state choral ensembles. When possible, Level 3 Concert Choir will participate in an adjudication activity. This course may be repeated for credit. This course satisfies the fine arts requirement.

**Show Choir**

Students enrolled in this course will develop and refine performance skills related to advanced music. Students will sing and dance in a select ensemble. A variety of choral literature will be utilized to assist students in refining the ability to understand, appreciate, perceive, create, and respond to music. Students will be expected to participate in a variety of performances outside the school day and will be encouraged to audition for regional and/or state choral ensembles. When possible, Show Choir will participate in an adjudication activity. This course may be repeated for credit. This course satisfies the fine arts requirement.

**Chamber Choir**

Chamber Choir will be comprised of a small auditioned ensemble of students in grades
10-12 who have participated in choir at the high school level for at least one semester – about 15-20 students total. Emphasis is placed on performance of standard choral music. Students will develop the ability to understand, perceive, create, respond, and appreciate a variety of choral music. Students will participate in public performances such as concerts, holiday programs, and/or community functions.

**Advanced Musicianship**

124103  
Level: 3  
Credits: 1.0  
SCED: 05113  
Prerequisite: Participation in Band or Chorus

Students enrolled in this course will be involved in individual private study and/or advanced small group ensembles such as Woodwind Quartets, Brass Ensembles, Vocal Groups, String Groups and Piano Groups. The primary purpose of this course will be to advance the proficiency of students who are performing at a level beyond that of the high school band, orchestra or chorus. Piano ensembles will perform from a beginning level. Music performed will be of a more classic or traditional nature. Students electing the vocal or band ensemble portions of this course will be required to audition for All Shore and/or All State Band or Chorus.

**Music Theory I**

123113  
Level: 3  
Credits: 1.0  
SCED: 05113  
Prerequisite: One year of music performance at the secondary level

Music Theory I explores the beginning fundamentals of music. These fundamentals will include elements of pitch, harmony, key, melodic dictation and rhythm. Students will be involved with conventional musical analysis, part writing and composition. Students will be required to read musical notation, as a fundamental part of this course. The course will culminate into a final composition project.

**Music Theory II**

124113  
Level: 3  
Credits: 1.0  
SCED: 05113  
Prerequisite: Satisfactory completion of Music Theory I

Music Theory II continues the skills developed in Music Theory I. In addition, students will learn advanced musical form, advanced harmonies, detailed analysis, advanced progressions, arranging, melodic dictations, and non-conventional notations. This course will culminate in a final composition/arranging project.

**Band Front/Majorette**

120132  
Level: 2  
Credits: 1.0  
SCED: 05149

Band Front/Majorette is designed for students who are interested in being a part of one of the marching band auxiliary units. These units may include majorettes, color guards, swing/tall flags, batons and rifles. The class usually meets during the same period as band. Emphasis is on skills necessary for successful performances. This course satisfies the fine arts requirement.

**Jazz Ensemble**

124123  
Level: 3  
Credits: 1.0  
SCED: 05106  
Prerequisite: Elementary and middle level instruction and proficiency in playing grade III music

Jazz Ensemble is a course designed for students with an interest in learning to play and perform jazz music. A basic understanding of notation and rhythmic reading is required. Emphasis is placed on the history of jazz and solo improvisation. Students enrolled in this course will develop and refine performance skills related to advanced music. To be offered as a Level 3 course, the Jazz Ensemble will meet to represent the school in outside functions and be encouraged to audition for regional/state ensembles. When possible, Level 3 Jazz Ensemble will participate in an adjudication activity. This course satisfies the fine arts requirement. This course may not be available at all schools.

**Orchestra**

121123  
Level: 3  
Credits: 1.0  
SCED: 05104  
Prerequisite: Elementary and Middle Level String Instruction

High school orchestra focuses on combining technical skills, expression, and historical information to perform both historic and contemporary literature for the string orchestra. Membership in orchestra is based upon student experience, knowledge of the instrument, and the desire to participate in a classically based ensemble. Students must have control of the basic fundamentals of their instrument and be advanced enough to perform literature on the high school level. This course satisfies the fine arts requirement. This course may not be available at all schools.
In this semester course, students will be given the opportunity to develop lifelong physical activities. Through activities involving cycling, weight training, jogging, walking, dancing and/or aquatic exercise, students will develop an understanding of the importance of exercising the cardiovascular system in daily life. At the beginning of the course, students will participate in a physical fitness inventory to develop an individualized plan for the semester.

**Weightlifting/Physical Conditioning**
170132  Level: 2  Credits: 1.0
SCED: 08009
Prerequisite: Personal Fitness and Health

All students in grades 10 through 12 are eligible to take this basic physical fitness/weight training course. Students and the teacher will develop an individualized training program. An individualized physical fitness plan will also be developed in the same manner. Part of the latter plan will be a fifteen-minute cardiovascular exercise.

**Strength, Power, and Speed Training through Weightlifting**
170142  Level: 2  Credits: 1.0
SCED: 08009
Prerequisite: Personal Fitness and Health

This course is offered to all students in grades 10 through 12 who have a serious interest in improving their strength, power, and speed. This course will be in a structured and disciplined environment that will enhance instruction for the serious student in the proper lifting techniques with an emphasis on improvement. It will also be demanding on the students to show progress through physical testing in the aforementioned areas throughout the duration of the semester.
The Maryland State Department of Education (MSDE) requires students to earn at least three science credits which include a laboratory component engaging in the application of the science and engineering practices, the crosscutting concepts, and disciplinary core ideas including Earth/space science, life science, physical science (chemistry and physics), and engineering, technology, and applications of science, and are aligned to the Maryland High School Assessment for science. To graduate, every student must successfully complete one course in Biology, one course in either Physical Science or Chemistry, and one additional science laboratory courses aligned to the Maryland Next Generation Science Standards in - Earth, Life, Environmental, or Physical Sciences. It is recommended that college bound students with interest in technology, engineering, and life sciences elect Chemistry and Physics as their second and third courses.

**Biology 9 ◆**

522143 Level: 3 Credits: 1.0
522143C
SCED: 03051
Prerequisite: 9th grade student

Biology 9 is aligned to the Maryland Next Generation Science Standards. This course is an introductory study of living things and their environment. Students entering 9th grade in the 2019-2020 school year must take this course in order to be prepared for the new Maryland Integrated Science Assessment (MISA), a requirement for graduation. Topics include: structure and function; growth and development of organisms; matter and energy flow in organisms; ecosystem interactions, energy, and dynamics; inheritance and variation of traits; biological evolution; and biodiversity. This course includes NGSS performance expectations for Life Science, Physical Science and Earth Space Science. This course also satisfies the Maryland Environmental Literacy Graduation requirement.

**Biology 10 ◆**

522153 Level: 3 Credits: 1.0
SCED: 03051
Prerequisite: Satisfactory completion of Environmental Science 9

Biology 10 is an introductory study of living things and their environment. Topics include: the relationship between the structure and function of biologically important molecules and their relationship to cell processes; how all organisms are composed of cells which can function independently or as part of multicellular organisms; how genetic traits are inherited and passed on from one generation to another; and, the interdependence of diverse living organisms and their interactions with the components of the biosphere. Certain NGSS standards for Life Science, Earth Science, and Chemistry are included in this class. All 10th grade students who were enrolled in Environmental Science 9 during the 2018-2019 school year must take this course to satisfy the Maryland Environmental Literacy graduation requirement. This course is intended for students who entered 9th grade prior to the 2019-2020 school year.

**Accelerated Biology ◆**

513103 Level: 3 Credits: 1.0
SCED: 03152
Prerequisite: Satisfactory completion of Chemistry and Biology. Zoology is highly recommended.

Accelerated Biology is an in-depth study of molecular and cellular biology to prepare students for Advanced Placement Biology. Topics to be studied include: Organic chemistry, bioenergetics, molecular genetics, cytology, and genetic engineering.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor.

**Advanced Placement Biology ◆**

514104 Level: 4 Credits: 1.0
SCED: 0315
Prerequisite: Satisfactory completion of Accelerated Biology

This is a college level course in Biology. The course is designed to prepare students to take an advanced placement test and earn up to eight college credits in Biology. Students are required to perform all of the twelve laboratory exercises (3 hours each) some of which may extend beyond the school day.
This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor. This course satisfies the Maryland Environmental Literacy graduation requirement.

**SU Bio210 DE**

553144  Level: 4  Credits: 1.0 HS/4.0 SU
SCED: 03052
Prerequisite: Satisfactory completion of Biology, Chemistry, and Algebra II or Algebra II, Pt. 2.

This Salisbury University dual enrollment course is an introduction to the study of biology, focusing on how biologists know things and study the world of life, with emphasis on cell biology, genetics, ecology and evolution. This course may not be offered at all schools.

**Human Anatomy and Physiology**

802123  Level: 3  Credits: 1.0
SCED: 03053
Prerequisites: Biology 10

Students learn the structures and the functions of the human body. Emphasis is on the relationship between the human body in states of wellness or illness. This is a laboratory science class that may be used for credit towards graduation.

**Physical Science 11**

522123  Level: 3  Credits: 1.0
SCED: 03159
Prerequisites: Environmental Science 9 and Biology 10

Physical Science 11 is designed to introduce facts, principles and laws from chemistry and physics. Topics include atomic and nuclear structure, chemical bonding and chemical reactions, solutions, motion, force, energy, wave motion (light and sound), electricity and magnetism and optics. This course will also include an introduction to laboratory experiences. It provides an introduction to these concepts without a strong dependence on computation.

**Chemistry**

522103  Level: 3  Credits: 1.0
SCED: 03101
Prerequisite: Satisfactory completion of Algebra I and Biology 10

This course is a theoretical/mathematical approach to the study of chemistry. Topics include: atomic theory, the structure of matter, chemical bonding, the periodic table, kinetic molecular theory, solutions, redox reactions, chemical calculations and basic stoichiometry. Emphasis will be placed on the theoretical and mathematical interpretation of laboratory investigations. This course is strongly recommended for the college bound student.

**General Chemistry I (DE)**

524114  Level: 4  Credits: 1.0 HS/4.0 WW
SCED: 03101
Prerequisite: Satisfactory completion of Biology 10, Chemistry and Algebra II or Algebra II, Pt. 2

This dual enrolled course examines the fundamental laws of chemistry and atomic structure, with an emphasis on chemical calculations and quantitative relationships. This course may not be offered at all schools.

**SU Chem121 DE**

553154  Level: 4  Credits: 1.0 HS/4.0 SU
SCED: 03102
Prerequisite: Satisfactory completion of Biology, Chemistry, and Algebra II or Algebra II, Pt. 2.

This Salisbury University dual enrollment course examines the fundamental laws of chemistry and atomic structure emphasizing quantitative relationships. This course may not be offered at all schools.

**Accelerated Chemistry**

523103  Level: 3  Credits: 1.0
SCED: 03102
Prerequisite: Satisfactory completion of Chemistry

Accelerated Chemistry is an extension of Chemistry I. In high schools offering both courses the curriculum may be spread out over a two-year period to provide an in-depth study and increased laboratory experience. This course is strongly recommended for students planning careers in Math, Science, Engineering or Medicine.

**Accelerated Physics**

534103  Level: 3  Credits: 1.0
SCED: 03152
Prerequisite: Satisfactory completion of Calculus. Completion of Physics is helpful but not required.

Accelerated Physics is a semester long course preparing the student for the Advanced Placement Physics C: Mechanics course. The content will include; kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Significant emphasis will be placed on interpretation of laboratory data.

**Advanced Placement Chemistry**

524104  Level: 4  Credits: 1.0
SCED: 03106
Prerequisite: Satisfactory completion of Accelerated Chemistry
This is a college level Chemistry course. This course designed to prepare students to take an advanced placement test and earn college credit in Chemistry.

**Physics ♦**

533103   Level: 3   Credits: 1.0

SCED: 03151

Prerequisite: Satisfactory completion of Algebra II and Geometry

This course represents a theoretical and mathematical approach to the study of classical physics. The four basic areas are mechanics or motion, thermodynamics, wave motion (to include light), and electricity and magnetism. Emphasis will be placed on interpretation of original laboratory data. Physics is strongly recommended for the highly motivated, math able, college bound student.

**Advanced Placement Physics A: Newtonian Mechanics ♦**

534304   Level: 4   Credits: 1.0

Pre-requisite – Accelerated Physics

Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.

The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. The following are Big Ideas: Objects and systems have properties such as mass and charge. Systems may have internal structure. Fields existing in space can be used to explain interactions. The interactions between systems can result in changes in those systems. Changes that occur as a result of interactions are constrained by conservation laws. Waves can transfer energy and momentum from on location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena.

**Advanced Placement Physics C: Mechanics ♦**

532204   Level: 4   Credits: 1.0

SCED: 03156

Prerequisite: Satisfactory completion of Accelerated Physics

This is a college level Physics course offered only at Worcester Technical High School that serves as the foundation in physics for students intending to major in engineering. It is designed to prepare students to take an advanced placement test and earn college credit for Physics. The class will consist of; kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation.

**Advanced Placement Physics C: Mechanics (DE) ♦**

553124   Level: 4   Credits 1.0 HS/ 4.0 SU

SCED: 03156

Prerequisite: Satisfactory completion of Accelerated Physics

This AP Physics C is a dual enrolled course with Salisbury University and is only offered to students enrolled in the Pre-Engineering program at Worcester Technical High School. The course serves as the foundation in physics for students intending to major in engineering. The course consists of kinematics; Newton’s laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. This course is designed to prepare students to take an advanced placement test. Students can earn four Salisbury University college credits by successfully passing the course.

**Botany ♦**

513123   Level: 3   Credits: 1.0

SCED: 03058

Prerequisite: Satisfactory completion of Biology

Botany involves the study of plant taxonomy, structure, and function of plant parts and practical uses of plants, hazardous plants, pests and pesticides relative to our local area and general horticulture. Lab activities and field trips are included.

**Environmental Science 11-12 ♦**

543103   Level: 3   Credits: 1.0

SCED: 03003

Prerequisite: Satisfactory completion of Biology 10 or the recommended Chemistry

Recommendation: 11th or 12th Grade

This course deals with ecology; the study of how life interacts with its environment. Man's effects on the environment will be traced from the days of the early cave man to the present. Field studies will be conducted to examine the plants and animals of various ecosystems. Also the effects of various chemicals on the environment will be studied. This course satisfies the Maryland Environmental Literacy Graduation requirement.

**Environmental Science (DE) ♦**

543104   Level: 4   Credits 1.0 HS/ 4.0 WW

SCED: 03003

Prerequisite: Satisfactory completion of High School Biology 10 and Chemistry

This is a dual enrolled, general education natural science course that integrates the physical and biological sciences in order for students to gain understanding of humans in their environment. This...
course emphasizes critical thinking and an evaluation of current topics in environmental science in a local, national and global context, and prepares students to be able to discuss ecological concerns and rational solutions for today's environmental problems. This course satisfies the Maryland Environmental Literacy Graduation requirement. This course may not be offered at all schools.

**Advanced Placement Environmental Science ♦**

544104  Level: 4  Credits: 1.0  SCED: 03207  
Prerequisite: Satisfactory completion of a course in Chemistry and Biology 10

The AP Environmental Science course is designed to be the equivalent of a one semester, introductory college course in Environmental Science. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. This course is designed to prepare students to take an advanced placement test and earn college credit in Environmental Science. This course satisfies the Maryland Environmental Literacy Graduation requirement.

**SU AP Environmental Science DE ♦**

553134  Level: 4  Credits: 1.0 HS/4.0 SU  SCED: 03207  
Prerequisite: Satisfactory completion of Biology and Chemistry

This Salisbury University dual enrollment course explores global and regional environmental processes and systems, as well as the impact of humans on these systems. Addresses current environmental issues such as climate change, habitat loss and water pollution, emphasizing the role of science in identifying problems and finding solutions. Course may not be offered at all schools.

**Marine Biology ♦**

513113  Level: 3  Credits: 1.0  SCED: 03005  
Prerequisite: Satisfactory completion of Biology 10 or the recommended Chemistry  Recommendation: 11th or 12th Grade

Marine Biology involves the study of selected groups of marine plants and animals to develop an understanding of biological marine principles. Topics will include the marine environment, adaptations of marine life, and the effect of humans on the marine ecosystem.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor. This course satisfies the Maryland Environmental Literacy Graduation requirement.
Government ◆ ◆
611103       Level: 3       Credits: 1.0
SCED: 04151

The United States Government course provides students the basic information they need in order to function as a citizen on the local, state, national, and international level. The course acquaints students with the duties, responsibilities of citizens and the history and structure of government and politics in the United States. Students will learn about issues at the National, State, and local level and how each level of government is impacted by history, economics, and geography.

A short course of Financial Literacy will build upon previous study of financial literacy in elementary and middle school courses. Students will partially meet the service learning requirement. Completion of Service Learning Projects are required to successfully complete this course.

The course satisfies the Government course requirements for graduation.

This course prepares students for the Maryland High School Assessment in Government, a requirement for graduation.

World History ◆
612103       Level: 3       Credits: 1.0
SCED: 04053

*Seniors only during the 2019-20 School Year.

This course is designed to help students become familiar with diverse civilizations and develop an understanding of the history, which has culminated in current world situations. Students study at least one new European civilization in depth while surveying the history of humankind from the Renaissance to the present. Students examine the geographic, economic, and social conditions and their influence on the modern world. Students also study the concepts of industrialization, nationalism, revolution, and imperialism. In the final units, students focus on the modern world with an extensive review of (1) World War II and (2) the Soviet economy, government and history followed by (3) an examination of present day world problems (the Middle East, Asia, Africa, and Europe). Students are expected to complete extended reading and writing assignments. A research paper is required to successfully complete this course. This course satisfies the World History course requirements for graduation.

United States History ◆
613103       Level: 3       Credits: 1.0
SCED: 04103

This course is a chronological survey of United States History from 1877 to the present. Emphasis is given to the acquisition of skills so that students can evaluate social, economic, political, and diplomatic developments in the United States. Students are expected to complete extended reading and writing assignments. The ultimate goal of the course is to have students gain sufficient knowledge and understanding of the past so they will be better prepared as responsible adult citizens. A research paper is required to successfully complete this course. This course satisfies the United States History course requirements for graduation.
A Departmental Academic Elective does not satisfy the Social Studies graduation requirement. This course counts toward graduation requirements as an elective only.

**Advanced Placement World History ♦**

615224  Level: 4  Credits: 1.0
SCED: 04057
Prerequisite: Satisfactory completion of Topics in World History (or Dual Enrollment World Civilizations I if offered.)

The Advanced Placement Program in World History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in World History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, their reliability, and their importance - and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing to include a mandatory research paper.

This course is designed to prepare the student to take an advanced placement test and earn college credit in World History. This course satisfies the World History course requirements for graduation.

**Advanced Placement American History ♦**

613104  Level: 4  Credits: 1.0
SCED: 04104
Prerequisite: Satisfactory completion of Topics in United States History

The Advanced Placement Program in American History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in American History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, their reliability, and their importance - and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing to include a mandatory research paper.

This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in American History. This course satisfies the U. S. History course requirements for graduation.

**Advanced Placement European History ♦**

614104  Level: 4  Credits: 1.0
SCED: 04056

The Advanced Placement Program in European History is designed for qualified students who wish to complete studies in secondary school equivalent to college introductory courses in this field. In addition to a basic exposure to the factual narrative, the goals of the Advanced Placement Program in European History are to develop (a) an understanding of some of the principal themes in modern European History and (b) an ability to analyze historical evidence.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing.
This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in European History. This course does not satisfy the World History graduation requirement. It is strongly recommended that students successfully complete Topics in European History if offered before taking this course.

Psychology ♦
623103 Level: 3 Credits: 1.0
SCED: 04254

This course is an introduction to the study of human behavior. Course content includes history and approaches in psychology, research methods, biological basis of behavior, states of consciousness, sensation and perception, and developmental psychology. This course is a prerequisite for Advanced Placement Psychology.

Advanced Placement Psychology ♦
623104 Level: 4 Credits: 1.0
SCED: 04256
Prerequisite: Satisfactory completion of Psychology

Advanced Placement Psychology is a course designed for college-bound students in preparation for intermediate and advanced courses in psychology.

This course will be taught from a biological perspective with the emphasis being on understanding the physical origins of behavior. Students will apply their learnings to the following areas of study: sensation and perception; development; states of consciousness; learning and memory; thinking, language and intelligence; motivation and emotion; personality; abnormal behavior and therapy; stress and health; social behavior; and statistical reasoning in everyday life.

This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in psychology.

Service Learning Elective ♦
900103 Level: 3 Credits: 1.0
SCED: 22104

Students in grades 11 and 12 are eligible to take the Service Learning Elective. This course provides an opportunity to perform unpaid volunteer services in the school and community. Completion of the course may earn credit toward satisfying the service learning graduation requirement. Students will be responsible for attending some after school classes in preparation for service, reflection, and completion of other academic requirements. Students will be responsible for arranging their own program, schedule, and transportation to the site. Parental permission is required to participate.

World Civilizations I DE ■
615234 Level: 4
Credits: 1.0 High School Credit/3.0 Wor-Wic Credits
SCED: 04099

This is a dual enrollment college elective course taught by home school staff that can serve as prerequisite to AP World History. The purpose of World Civilizations I is to explore human development from pre-historic times (B.C.E.) to the rebirth of an interest in learning and the arts in the 16th century (C.E.) Europe. Students will be provided with an understanding of the contributions of past eras in many parts of the globe in relation to subsequent events. This course does not meet the World History graduation requirement. May not be available at all schools.

Topics in World History ♦
615223 Level: 3 Credits: 1.0
SCED: 04065

Topics in World History is designed for qualified students who wish to complete studies in the secondary school equivalent to college introductory courses in this field. In addition to a basic exposure to the factual narrative, the goals of the Topics in World History are to develop (a) an understanding of some of the principal themes in World History and (b) an ability to analyze historical evidence.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing. This course does not satisfy the World History graduation requirements.

Topics in United States History ♦
615103 Level: 3 Credits: 1.0
SCED: 04109

This course covers United States History from Colonial times to 1877. This course is
designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in American History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials and their relevance to a given interpretive problem, their reliability, and their importance and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading. This course does not satisfy the U. S. History course requirements for graduation.

**Economics ◆**
620103  Level: 3  Credits: 1.0
SCED: 04201  Prerequisite: Algebra I

This course is a survey of economic concepts, principles, and functions. Students will examine theories and then apply those theories to actual economic behavior. Microeconomic topics include supply and demand, production and consumption, and the economic role of government. Macroeconomic topics include measures of economic activity, the business cycle, money supply, and economic forecasting. International economic issues include trade policy, currency exchange, and international economic organizations. This course does not satisfy the World History graduation requirement.

**AP Macroeconomics ◆**
620204  Level: 4  Credits: 1.0
SCED: 04204  Prerequisite: Algebra I

The purpose of this AP course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. For the 2018-19 school year, this course is only offered at WTHS.

**AP Human Geography ◆**
652404  Level: 4  Credits: 1.0
SCED: 04004  Prerequisite: Algebra I

The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth’s surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. For the 2018-19 school year, this course is only offered at WTHS.
Note: Students should consult page 9 for courses that fulfill the Technology and Advanced Technology graduation requirements. See page 98 for additional computer science course offerings.

**Foundations of Technology ♦**
161103  Level: 3  Credits: 1.0
SCED: 21051

This course prepares students to understand and apply technological concepts and processes that are the cornerstone for the high school technology program. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, resources, and laboratory/classroom activities apply student applications of science, mathematics, and other school subjects in authentic situations. This course satisfies the Maryland Technology Education graduation requirement.

**Technology in Society ♦**
162123  Level: 3  Credits: 1.0
SCED: 21053
Prerequisite: Satisfactory completion of Foundations of Technology

Technology in Society contributes to the development of students’ capacity to make responsible judgments about technology’s development, control, and use. Critiquing appropriate technology and sustainable development are important. The structure of the course brings discussions of technological values so that students can reflect and develop their own ethical standards. Students are actively involved in the organized and integrated application of technological resources, engineering concepts, and scientific procedures. Students address the complexities of technology and issues that stem from designing, developing, using, and assessing technological systems. In developing a functional understanding of technology, students comprehend how human conditions, current affairs, and personal preferences drive technological design and problem solving. Students are able to analyze and understand the behavior and operation of basic technological systems in different contexts. This course satisfies the Maryland Technology Education requirement for advanced technology credit.

**Advanced Design Applications ♦**
162113  Level: 3  Credits: 1.0
SCED: 21052
Prerequisite: Satisfactory completion of Foundations of Technology

Advanced Design Applications consists of four units including Manufacturing, Energy and Power, Construction, and Transportation. The Manufacturing unit examines the advances that maintain manufacturing efficiency, how human consumption affects manufacturing, how manufacturing affects the standard of living of various peoples, and how processing and changing raw materials can produce more desirable products. The Construction unit examines a number of the factors influencing the design and construction of permanent and semi-permanent structures, the practices related to construction maintenance, alteration, renovation, and the functions of the primary systems installed in those structures. The Energy and Power unit explores the relationship between energy and power technologies and all other technologies, and how modern energy and power systems impact cultures, societies, and the environment. It also offers an examination of how energy and power systems can be made more efficient and how they may be utilized in problem solving. The Transportation unit examines the complex networks of interconnected subsystems that each transportation system comprises and the roles of these components in the overall functional process of the system. It also analyzes the improvements and the impacts of transportation technologies on the environment, society, and culture. This course satisfies the Maryland Technology Education requirement for advanced technology credit.
Engineering Design ♦

163203  Level: 3  Credits: 1.0
SCED: 21054
Prerequisite: Satisfactory completion of Foundations of Technology

This course focuses on how engineers apply their creativity, resourcefulness, mathematical, scientific and technical knowledge and skills in the creation or refinement of technological products/systems. A key approach will be the employment of a sophisticated, sequential and iterative design and development process to solve authentic engineering tasks/problems. Students will be challenged to participate as members of engineering teams within a typical business organization. Independent and group work will be reflective of authentic engineering projects found in the designed world. Student performance within this structure will be assessed in numerous and diverse ways. It is important to note that measurement of student performance will be reflective of actual professional engineering evaluative processes currently used in this career field. Major 'topics' or 'chapters' will be included to organize instruction of appropriate standards and benchmarks and reflect contemporary engineering industry practices:

- Principles of Design
- Engineering Resources
- Engineering Design Process
- Project Management

Foundations of Computer Science ♦

462113  Level: 3  Credits: 1.0
SCED: 10171

This course introduces students to the field of computer science through an exploration of engaging and accessible topics. It is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. Students will develop the computational practices of algorithm development, problem solving and programming within the context of real-world problems. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues. This course can be used as a required technology education credit or a fourth-year math course for students in Grade 12.

Advanced Placement Computer Science Principles ♦

463114  Level: 4  Credits: 1.0
SCED: 10157
Prerequisite: Satisfactory completion of Foundations of Computer Science

This course advances students understanding of the technical aspects of computing including programming, algorithm design, computer system organization and operation, data representation and information organization. This course includes the use of JAVA and other programming languages to solve problems. This course is designed to prepare students to take the AP Computer Science Principles Test. May not be offered at all high schools.

Advanced Placement Computer Science A ♦

464104  Level: 4  Credits: 1.0
SCED: 10157
Prerequisite: Satisfactory completion of Foundations of Computer Science and AP Computer Science Principles

This course is a more in-depth study of computer science specifically in the aspects of computing, including programming and algorithm design, computer system and data representation and information organization. In this course, the primary language used in advancing the students' understanding of the application of computational thinking to real world problems is JAVA. This course is designed to prepare students to take the AP Computer Science Test. May not be offered at all high schools.

Student Tech Leaders ♦

161123  Level 3  Credits: 1
SCED: 21097
Prerequisite: Approval of the principal.

This course provides online resources and instruction necessary to prepare a team of Student Technology Leaders (STLs) with skills necessary to support the technology integration efforts of teachers, IT staff, and other adults working at the school. May be taken more than one semester.
Introduction to Theatre ♦
220103  Level: 3  Credits: 1.0
SCED: 05051

The Introduction to Theatre course is designed to introduce students to the world of theatre with an emphasis on theatre history. Students will study theatre units beginning with the origins of theatre in storytelling and ancient rites and rituals. Units offered may include: Greek and Roman Theatre, Medieval Theatre, Renaissance Theatre, and commedia dell’arte, Elizabethan Theatre and Shakespeare, and Restoration Drama.

As each period is introduced, students will sample the dramatic literature of the period by studying a play or portions of a play. Scenes may be enacted and design projects may be incorporated into the analysis of the text.

Students will be introduced to the form and structure of a script and will learn how to read a script. Along with this, students will be introduced to the basic terminology of dramatic literature, such as rising action, and the basic terminology of the theatre, such as upstage and downstage. Students will make diagrams of a variety of types of stages and learn the strengths and limitations of the proscenium arch, arena, and thrust stages.

Throughout the semester, students will engage in acting exercises that teach concentration, listening, observation, relaxation, projection and articulation, stage movement, and character development.

Students may produce one or more small theatre pieces during the course of the semester. This course satisfies the Fine Arts credit requirements needed for graduation.

Technical Theatre ♦
220213  Level: 3  Credits: 1.0
SCED: 05099
Prerequisite: Introduction to Theatre

This course is a pilot course. It will expose students to the practical, tangible elements of theatre production which include: Business/Public Relations, Set Design and Construction, Scenic Painting, Costume Design, Hair/Make-up Design, and Lighting and Sound Design. The course will incorporate Math, Science, English and Social Studies concepts, as well as build students creativity and artistic expression through the Maryland State Theatre Standards. The valuable life skills students will learn through these production-oriented tasks include, setting goals, working collaboratively, meeting deadlines, and learning to be resourceful. This is a hands-on course which may require multiple projects and culminate in a final performance, demonstrating and showcasing their technical skis.

Theatre Production ♦
220113  Level: 3  Credits: 1.0
SCED: 05061

The course is taught as a practicum. Students learn by doing. There are three to four productions a year in which students must participate. Theory is taught through performance situations in addition to acting fundamentals of stage movement, voice, character development and basic technical theater work in lighting, set construction, make-up, costuming and stage properties. This course satisfies the Fine Arts credit requirements needed for graduation.
Art I ✧
111103  Level: 3  Credits: 1.0
SCED: 05154

Art I is an introduction to the visual arts through the exploration of the elements of art and principles of design, through studio-based work. Students will be introduced to a variety of media and techniques, and may be asked to keep a journal or sketchbook. Additionally, students will become familiar with major historical periods and their representative styles, media, language and artists. Classwork may include related reading, note-taking, and assessments. A comprehensive final exam or project will be given at the end of the semester, which is worth 20% of the final grade. This course satisfies the fine art requirement.

Art II ✧
112103  Level: 3  Credits: 1.0
SCED: 05154
Prerequisite: Satisfactory completion of Art I or special permission from the central office, based upon nomination and a portfolio review.

Art II is an extension of the elements and principles introduced in Art I. This course is intended to increase students’ higher-level thinking skills, technical proficiency, and ability to apply these skills to personal expression. In this course, students will explore a variety of media and be expected to understand the application of these materials in an advanced fashion. Students may be required to complete projects outside of class, and may be asked to keep a sketchbook/journal. Classwork may include related reading, note-taking, and assessments. A comprehensive final exam or project will be given at the end of the semester, which is worth 20% of the final grade.

Advanced Art ✧
113103  Level: 3  Credits: 1.0
SCED: 05154
Prerequisite: Satisfactory completion of Art II; for IMP (Interactive Media Production) students, a portfolio demonstrating the knowledge and skills needed for advanced work.

This course allows students to advance their study of art, and, if so desired, to enroll in Advanced Placement Studio Art or Advanced Placement Art History. Students will build a comprehensive portfolio of artwork and will be required to complete projects outside of class. Works may be a variety of or a collection of mediums, subject matter and/or themes.

Advanced Art is offered for students seriously interested in pursuing a possible career in visual art. Emphasis is on refining techniques, developing personal style, medium specialization, and portfolio presentation.

If the student enrolls in Advanced Placement Studio Art, work completed in this course may be used for completion of the portfolio requested for the Advanced Placement Studio Art exam.

This course satisfies a fine art credit and may be repeated for credit.

Advanced Placement Studio Art ✧
114104  Level: 4  Credits: 1.0
SCED: 05174
Prerequisite: Satisfactory completion of Advanced Art

This course is designed for those students in grades 11 and 12 who wish to pursue completion of a portfolio to be submitted for college credit. This is achieved through a comprehensive study in which the student utilizes a variety of materials and demonstrates techniques based on The College Board Advanced Placement Program in Studio Art. A student must choose one genre in which to complete a portfolio: studio drawing, two-dimensional art, or three-dimensional art. Students who expect to earn college credit for this course should plan on a two-year study that begins in Advanced Art to complete the portfolio. A portfolio review and pre-enrollment conference with an art instructor is strongly recommended.

Three Dimensional Studio Art ✧
114214  Level: 3  Credits: 1.0
SCED: 05158
Prerequisite: Satisfactory completion of Art I

This course is designed for students who wish to create three-dimensional works of art in a studio environment. Students will explore a variety of art mediums, including wire, papier-mâché, plaster, and clay, amongst others. They will create works of
art using several art making methods, including assemblage, additive and relief sculpture, hand building, and mold making. This course is intended to increase students’ higher-level thinking skills, technical proficiency, and ability to apply these skills to personal expression. Students will engage in classroom critiques and in turn will learn to think and engage in discourse about art in a purposeful and intellectual way. Students will be required to keep a sketchbook and complete a research project and PowerPoint presentation.

**Utilitarian Art Forms ◆**

112113  Level: 3  Credits: 1.0  
SCED: 05165

Utilitarian Art Forms, an introduction to the visual arts, is an exploration of a variety of utilitarian and decorative arts produced by artisans and craftsmen from around the world. This course is intended to provide hands-on experiences, which emphasize cultural appreciation and personal expression. Students will increase their ability to refine and apply knowledge and skills in a variety of forms. Emphasis is placed on the creation of quality products of increasing difficulty within each unit of study. Classwork will include related reading, note taking, assessment, and the exploration of the elements of art and principles of design through project work. Students may be expected to provide their own materials for advanced projects. This course satisfies the fine art requirement.

**Design and Photography I ◆**

113123  Level: 3  Credits: 1.0  
SCED: 05167

This course is open to 10th, 11th, and 12th grade students only. It serves as an introduction to the elements and principles of design and the basic concepts of black and white film photography. The students will become familiar with black and white film development and darkroom techniques and procedures. This course will emphasize compositional guidelines that serve as the basis for quality art and photography. The students will also become familiar with the history of photography, complete research, and design a PowerPoint presentation. The students will explore various mediums and techniques and develop skills when utilizing these materials. It is beneficial for students to have their own manual 35 mm SLR camera and may have to provide other materials. This course satisfies the fine art requirement.

**Design and Photography II ◆**

114123  Level: 3  Credits: 1.0  
SCED: 05167

Prerequisite: Satisfactory completion of Design and Photography I

This course is designed for students seriously interested in developing and refining their artistic talents in the areas of design and photography. This course is an expansion of the "Design and Photography I" course. Emphasis is placed on refining each student’s technical expertise of camera handling, selection of subject matter, composition, film development, printing, and presentation of the finished print. Experimental methods are explored and portfolios developed. Students are expected to have their own 35 mm SLR camera with light meter and flash and may have to provide materials for selected projects. Alternative forms of photography such as 2 1/4 photography, digital photography, and flash photography may also be explored.

The design aspect of the course will be art projects that augment the photography component - dealing with composition, its guidelines, and artistic creativity. These projects will be the classwork for each student when he/she is not developing film, printing, hand-coloring prints, or matting prints. This course may be repeated for credit.

**Advanced Placement Art History ◆**

115104  Level: 4  Credits: 1.0  
SCED: 05153

This course is designed as an introductory college course in art history and will provide high school students with the same opportunities as those students who enroll in such a course on the college level. This course will require a high degree of commitment to academic work and students will be expected to meet the rigors of college standards. This course will provide the students with the opportunity to examine major forms of artistic expression from the past and present from a variety of cultures. Students will develop an appreciation and understanding for architecture, sculpture, painting and other art forms within historical and cultural contexts. They will learn to look at works of art critically, with intelligence and sensitivity, and to analyze what they see. Many colleges and universities offer advanced placement and/or credit to students who have performed successfully on the AP History of Art examination.

- Weighted Class  ■ - Dual Enrollment Course  ◆ - State Assessed Course
Design and Digital Photography ♦
112143    Level: 3    Credits: 1.0
SCED: 05167

Prerequisite: Satisfactory completion of Art I or special permission from the central office, based upon nomination and a portfolio review.

This course serves as an introduction to the elements of art and principles of design and the basic concepts of digital photography. The students will become familiar with the elements and principles of design as they relate to photographic composition and lighting and will manipulate photographs using software such as Adobe Photoshop and Lightroom. The will explore the history of photography, its scientific and technological developments, and important innovators in the field.

Students will write and speak about aesthetic, technical and expressive qualities in a photograph, learning to critique their own and others work. Students will learn how to manage and creatively alter digital images as well as critically analyze the use of visual media as a means of communication in our society today. Students are expected to supply their own digital camera and USB flash drive.
World Language

French I, II, III, IV - A sequence of courses designed to develop a student's ability to understand and use the French language with an ultimate goal of being able to communicate effectively in the target language. There is also an effort to acquaint the students with the cultures of French-speaking people. The four skills of listening, speaking, reading, and writing are emphasized throughout the sequence. It is recommended that students earn a grade of "C" or better before advancing to the next level.

**French I**
261113  Level: 3  Credits: 1.0  SCED: 24102

This course provides an introduction to the French language and culture based on basic vocabulary and grammatical structures. Listening, speaking, reading, and writing skills are emphasized. General points of culture are studied.

**French II**
262113  Level: 3  Credits: 1.0  SCED: 24103

This course is a continuation of the development of the basic skills with more emphasis on speaking, listening, reading, writing, and culture. Much more vocabulary and many important foundational grammatical concepts are covered including present, future and past tenses in sentences. A wide variety of regular and irregular verb forms and adjectival forms are studied. This course is designed to give students a solid foundation in the French language.

**French III**
263113  Level: 3  Credits: 1.0  SCED: 24104

This is a continuation of the development of the four basic skills: reading, writing, listening, and speaking. Complex grammatical structures are included as well as much more vocabulary building. There is greater emphasis on building fluency in the target language in each of the four communication skills.

**French IV**
264113  Level: 3  Credits: 1.0  SCED: 24105

A continuation of fluency building in each of the four basic skills: reading, writing, listening, and speaking. Additional grammatical structures are included as well as the increased use of authentic materials. The course will culminate with the reading of a novel in the target language.

**Advanced Placement French Language and Culture**
264114  Level: 4  Credits: 1.0  SCED: 24114
Prerequisite: Satisfactory completion of French IV

Advanced Placement French is a program whose main objective is for students to achieve a high level of ability in listening, reading, speaking, writing, and cultural understanding. AP French focuses on cultural and literary content while emphasizing conversation and composition. The course is designed for students who are willing and capable of completing university level coursework. Students must be well prepared and have a high level of motivation and interest sufficient to complete independent, out-of-class assignments.

This course is designed to prepare students for the academic rigors of college work and to prepare students to take an advanced placement test in French language.

**Spanish I**
261123  Level: 3  Credits: 1.0  SCED: 24052

This course provides an introduction to the four basic skills (listening, speaking, reading and writing). The most basic structure and vocabulary of
the Spanish language and general points of Spanish culture are studied.

**Spanish II ♦**  
262123 Level: 3 Credits: 1.0  
SCED: 24053

This course is a continuation of the development of basic skills. Vocabulary is augmented and the study of verbs and grammatical structures intensified. General points of Spanish culture are studied.

**Spanish III ♦**  
263123 Level: 3 Credits: 1.0  
SCED: 24054

This course is a continuation of the development of basic skills. Vocabulary is augmented and the study of verbs and grammatical structures intensified. General points of Spanish culture are studied.

**Spanish IV ♦**  
264123 Level: 3 Credits: 1.0  
SCED: 24055

This course provides a polishing of the four basic skills (emphasis on conversation and writing) through grammar review, discussions and extensive exercises (oral and written) based on novels and short stories studied.

**Advanced Placement Spanish Language and Culture ♦**  
264134 Level: 4 Credits: 1.0  
SCED: 24065  
Prerequisite: Satisfactory completion of Spanish I - IV

Advanced Placement Spanish is a program whose main objective is for students to achieve a high level of ability in listening, reading, speaking, and writing. The course is designed for students capable of doing college level coursework, which contains cultural and literary content while emphasizing conversation and composition. Students must be well prepared and have a high level of motivation and interest sufficient to complete out-of-class reading and writing assignments.

This course is designed to prepare students to take an advanced placement test in Spanish language.

**Advanced Placement Spanish Literature and Culture ♦**  
264134 Level: 4 Credits: 1.0  
SCED: 24065  
Prerequisite: Satisfactory completion of Spanish I - IV

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

**World Languages and Cultures ♦**  
262433 Level: 3 Credits: 1  
SCED: 24999

This research and presentation based course where students explore the diversity of languages and cultures that comprise our world. Students focus on linguistic structures of a variety of languages including useful expressions and etymologies. Students research a minimum of four countries from four different continents to gain an appreciation of the people, places, languages and their contributions to society. Students practice skills related to conducting reliable research and creating formal collegiate level presentations. This course is highly beneficial to students interested in pursuing a career working with diverse cultures.
Work Based Learning

Employment and Career Preparation
903102 Level: 2 Credits: 1.0
SCED: 22161
Prerequisite: Sophomore, junior, or senior status with an intention to participate in the Employment Experience.

This course is designed for students who anticipate participating in Employment Experience during their junior and/or senior year and not enrolled in a Career & Technology Education program. The curriculum includes the process of seeking, obtaining, maintaining, and advancing employment, as well as additional topics (banking, credit, savings, investing, taxes, and housing) to prepare students for college and career. Other employment related topics, including employment outlook in the local area, ethics in the workplace, interpersonal communication skills, and entrepreneurship are studied.

Employment Experience*
904102 Level: 2 Credits: 1.0
904112 Level: 2 Credits: 2.0
SCED: 22163
Prerequisite: Junior or senior status and satisfactory completion of one or more of the following: Employment and Career Preparation, Youth Employment Program, Career & Technology Education Program.

Students work and/or volunteer during and/or after the school day at a site that they secured. The instructor has the final approval. Timesheets and evaluations are due to the instructor on a pre-scheduled basis. The instructor will monitor student performance and visit the student's job site to address any issues related to the employment experience. Working a minimum of 15 hours per week earns two credits; working 7.5 hours per week earns one credit. To receive credit, students must meet the hourly requirement, be employed throughout the semester, and have satisfactory evaluations. Additionally, students must also be enrolled in at least three hours of other high school courses each day. This course may be repeated for credit. *Employment must be within the tri-county: Worcester, Wicomico, and Somerset.

Internship ♦
904103 Level: 3 Credits: 2.0
SCED: 22054
Prerequisite: Senior status, 12 or more credits of Level III coursework

A maximum of 20 honor roll students in grade 12 who have the approval of the principal and two teacher recommendations are eligible for this internship program. The focus of the program is career awareness, career information, and professional associations at non-school sites. Students intern a minimum of two periods a day or an equivalent amount of time for one semester with a professional sponsor. Students may repeat the internship for a second semester depending upon course enrollment and success in the previous internship experience. Internships may extend beyond the traditional school day. Students must successfully complete a minimum of 270 clock hours in this experience. Each student must be responsible for his/her transportation to and from the location of the internship. Students will be required to keep a daily journal, a weekly time log, and prepare a term project that demonstrates understanding of a specific career through a paper, exhibit, and/or other assignment which is approved by the school coordinator and the participating site coordinator. A grade is assigned for course work.

Tutorial Internship ♦
900113 Level: 3 Credits: 1.0
SCED: 22005
Prerequisite: Junior/Senior status

The focus of this program is to match junior and/or senior students with underclassmen who need assistance in core content area subject matter. Tutors will work with students to strengthen their skills that have been taught in core content areas. The tutors must have demonstrated a strong academic background, excellent math, written, and oral skills, and a willingness to assist others. Tutors must complete an application and interview process. They will be required to keep

♦ - Weighted Class ■ - Dual Enrollment Course ○ - State Assessed Course
weekly journals of three entries and complete a term project in the form of a formal paper, exhibit, and/or other assignment, which is approved by the school coordinator. A grade is assigned for course work.

**Community Work Experience I**  
904111  
Level: 1  
Credits: 0.0  
SCED: 22152

This course is designed for students who are on a non-diploma track for their high school experience to prepare them for a community work experience. The curriculum is designed to guide career exploration and develop employability skills. Students will be taught vocational, social and self-advocacy skills to be utilized in the workplace. Activities will include self and career awareness, goal setting, obtaining and keeping a job, resume development, interviewing, personal hygiene, and communication in the workplace. Functional academics (reading, writing, and mathematics) will be integrated in classroom lessons and activities. Students will be required to develop a portfolio to assist in transitioning from school to work. This course may be repeated.

**Community Work Experience II**  
904121  
Level: 1  
Credits: 0.0  
SCED: 22152

This course is designed for students who are on a non-diploma track for their high school experience. Students will participate in a community work experience for one half day. Each student will be provided with on-the-job training in site-specific tasks with the assistance of a job coach. Students will participate in a variety of work experiences for vocational exploration and resume development. Students will be required to document their experiences in their transition portfolio and will be evaluated by employers. This course may be repeated.
Career & Technology Education
General Information

Introduction
Career & Technology Education (CTE) offers a unique opportunity to engage students in an enormous variety of subjects, incorporating academic, creative and technical skills, with the specific goal, nowhere else represented in education, of preparing students for all of life after high school. CTE ensures that students graduate from high school prepared for postsecondary education and globally competitive for work in the 21st century. The Worcester County Public School System offers thirty (30) pathways for students interested in studying and exploring specific career areas while in high school. This section of the Catalog of Approved High School Courses will provide guidance regarding course selection, prerequisites, special requirements, and information needed to complete each Career & Technology Education (CTE) Program of Study. All programs are approved by the Division of Career and College Readiness of the Maryland State Board of Education and conform to state and federal student performance accountability measures. High school study with early college opportunities for post-secondary education and/or immediate competitive employment with industry credentials is reflected in Level III or Level IV designation for all CTE core course work. Please note that for the first course of any program to be offered in any given year, a minimum of ten (10) students is needed to establish a cohort.

What is a Career Cluster?
Career Clusters encompass a range of careers based on essential economic activities, similar interests, common skills, and training required by those in the field. It is a way to organize specific programs of study under broad career areas, grouping similar occupations.

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<td>• Homeland Security</td>
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<td>• Criminal Justice</td>
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<td>• Geographic Information Systems (GIS)</td>
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<td>• Early Childhood Education</td>
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<td>• Teacher Academy of Maryland</td>
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<td><strong>Information Technology Cluster</strong></td>
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<td>• Automotive Technician (NATEF)</td>
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Career & Technology Programs of Study

General Information Continued

What is a Career & Technology Program of Study?
A Career & Technology Program of Study is a specific set of courses associated with a designated career area. Each program has the following components:

- A demonstrated labor market demand
- A Program Advisory Committee (PAC) which includes business leaders and employers
- A Maryland State Department of Education approved sequence of courses
- A professional mentorship, work study, job shadowing, internship, and/or capstone project experience in which students learn more about the career cluster with which the program of study is affiliated
- An industry assessment which meets Maryland’s College and Career Readiness (CCR) designation and in many cases leads to certifications or licenses
- Articulated, transcripted and/or dual enrolled early college opportunities that also meet Maryland’s College and Career Readiness (CCR) designation

What are the benefits of joining a Career Academy?
Each Career & Technology Program of Study prepares students for post-secondary education and the world of work, ensuring that a student is truly both college and career ready upon leaving high school. Program participants become part of a cohort of students with similar interests completing courses together. Students in each cohort have an opportunity to work with industry mentors and participate in business projects, career-focused field trips, and special events that provide greater awareness of the specific career area and opportunities within that area. In addition, there are opportunities to gain certifications, licenses, and early-college credits.

Which Career Program of Study is right for me?
Career Programs of Study are created by the Maryland State Department of Education or the local school system to provide all high school students with a unique opportunity for in-depth exploration of a career area of interest. Connecting students’ interests to their potential career paths early ensures active participation in their own academic success and opens their eyes to the wide world of career opportunities. The career planning tools in Naviance allow students to understand how their strengths, goals, skills, and interests can lead to exciting careers. In addition, there is a career planning activity on the Worcester Tech website at http://www.worcestertechhs.com under the Parent and Student Resources tab.

How do I become a member of a Program of Study Cohort?
To become a member of a Career Program of Study cohort, a student should peruse the descriptions of each program in this section of the Catalog of Approved High School Courses to see which one may be of interest. (There are some students who actually complete two programs during high school.) A home school or Worcester Tech school counselor can work with any student to develop or revise the student’s four-year plan so that all requirements for the program chosen can be completed. If the demand for any program exceeds the seats available, an application procedure will be initiated. Worcester County Public Schools does not discriminate in admissions, access, treatment, or employment in its programs and activities on the basis of race, sex (including sexual harassment), sexual orientation, marital status, color, gender identity and expression, nation origin, creed, religion, age, ancestry, genetic information, or physical or mental disability.

Where are the Career Program of Studies located?
All Career Programs of Study are offered at Worcester Technical High School, with the exception of the business pathways and the Computer Science and Cyber Security pathway which may be offered in some home high schools.
Can I enroll in other elective classes, such as band, art, or music and still be in a Career Program of Study?
Yes, home school and Worcester Technical High School counselors will work hard to address any scheduling conflicts. Of course, sometimes there occurs a scheduling conflict that cannot be solved and so choices have to be made.

Can I play sports at my home school and still be in a Career Program of Study?
Yes, busses are sent from the home schools to pick students up at Worcester Technical High School for away games. In addition, students stay back at their home schools for pep rallies, assemblies, etc.

Whom do I contact if I have other questions?
If you need additional information about any Career Program of Study, please do not hesitate to call Worcester Technical High School at 410-632-5050 or talk to your home school counselor.

General Information Continued

Freshman STEM Academy

General Information

The Freshmen STEM (science, technology, engineering and mathematics) Academy at Worcester Technical High School provides in-coming 9th grade students the opportunity to participate in PLTW Pre-Engineering, PLTW Biomedical Science, PLTW Computer Science or Interactive Media in a cohort over a four-year period. In addition, in-coming 9th grade students are able to enroll in the following STEM programs in a cohort over a two-year period: Agriculture Science (CASE) or Geographic Information Systems (GIS). Students are accepted into these programs of study through a competitive application during the spring of their eighth grade year.

Career Research and Development

General Information

The Career Research and Development (CRD) Program empowers students to create a vision of their future through academic coursework, career development and appropriate work opportunities. During the program, students identify their interests, aptitudes and abilities, and apply that knowledge to investigate careers and higher education. Students who successfully complete the program demonstrate mastery of learning, thinking, communication, technology and interpersonal skills. As their program assessment, students will develop an individualized portfolio containing examples of completed assignments and/or special projects. Students are recommended by schools for this program.
The Interactive Media Program provides students a strong foundation in arts and communication with particular emphasis on design, graphic and media communication, interactive technologies, and project development. Throughout the program, students produce an assortment of three-dimensional models, two-dimensional animations, layered images, streaming media, and web pages. Students will also use a variety of software applications to design “apps” and develop video games. **There are six certifications available in this program: Dreamweaver, Flash, Illustrator, InDesign, Photoshop, and Premiere Pro.** Articulated or transcripted credit is available through the Community College of Baltimore County.

### Principles of Arts, Media, and Communication ♦ A
809143  
Level: 3  
Credits: 1.0  
SCED: 10911

This course provides students an understanding of all aspects of the Arts, Media, and Communication industry. Students will examine the opportunities and requirements of the major career pathways including graphic design, digital media, and interactive media.

### Interactive Media and Design Level I ♦ A
809213  
Level: 3  
Credits: 1.0  
SCED: 10912  
Prerequisite: Principles of Arts, Media, and Communication

This course continues the focus on three pathway areas: graphic design, digital media, and interactive media. Emphasis is placed on group project development and individual portfolio development.

### Interactive Media Portfolio Capstone ♦ A
809233  
Level: 3  
Credits: 1.0  
SCED: 10914  
Prerequisite: Interactive Media Design Level II

The capstone course enables students to apply what they have learned in their previous academic and IMP courses 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.

### FAST FACTS:
- Interactive Media Designer Salary: The Professional Association for Design (AIGA) compiled detailed graphic designer salary information and reported that print and/or web/interactive designers earned a median annual wage of $46,000, whereas design managers were paid $75,000 the same year. The AIGA also noted that front-end Web interface developers earned a median annual wage of $58,000, and back-end Web programmers made $65,000.
- Employment of workers in the interactive media field is projected to grow 6% in the next six years.
Students begin the Business Management Program with two foundation courses, which are taken at the home schools: Principles of Business Management and Entrepreneurship and Principles of Accounting and Finance. Students who complete this business program pathway will be able to develop a business plan for a small business. During the program, students will apply accounting, marketing, and management concepts to realistic business scenarios. All aspects of managing a business will be discussed in addition to the competencies learned in computer applications, business communications, and financial management. The Business Management Program recommends that students take advantage of work study, mentorship, internship, and job shadowing opportunities. Students will also benefit from involvement in the national professional organization Future Business Leaders of America (FBLA). This program has a college credit opportunity through the College Board Principles of Management CLEP Exam.

**Principles of Business Management and Entrepreneurship † A**
841113  
Level: 3  
Credit: 1.0  
SCED: 12961

This course provides students a foundational understanding of the role of business in a global society, American business as a dynamic process, forms of business ownership, management concepts, marketing, production and distribution, and accounting and finance. Along with a brief historical perspective, business terminology and principles will be emphasized. Students will learn to analyze the functions of business through evaluating, planning, organizing, and controlling.

**Principles of Accounting and Finance † A**
834133  
Level: 3  
Credit: 1.0  
SCED: 12941

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 to 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 systems for service and merchandising business. Students will apply appropriate accounting principles to payroll and tax liabilities.

**Advanced Business Management † Concentrator**
841133  
Level: 3  
Credit 1.0  
SCED: 12963

Prerequisite: Principles of Business Management and Entrepreneurship

This course provides students with the knowledge that will prepare them for post-secondary 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 (functional, operational, human relations), business law and ethics, and business communications.

**Business Management Capstone †**
841143  
Level: 3  
Credit 1.0  
SCED: 12964

Prerequisite: Advanced Business Management

This course provides students an opportunity to apply the knowledge and skills acquired in previous business management courses to settings through the Business Management Final Capstone Project. Students will participate in an end-of-program final project that will involve intense problem-solving in business management.
Students begin the Accounting and Finance Program with two foundation courses, which are taken at the home schools: Principles of Business Management and Entrepreneurship and Principles of Accounting and Finance. Students completing this pathway will learn decision making techniques, financial management, basic accounting principles, business communication skills, problem solving, teamwork and networking skills. The final two courses in the program focus on advanced accounting and finance knowledge to prepare them for college level courses and entry-level positions in the work force and a capstone course project. The Accounting and Finance Program recommends that students take advantage of work study, mentorship, internship, and job shadowing opportunities. Students will also benefit from involvement in the national professional organization Future Business Leaders of America (FBLA). This program has a college credit opportunity through the College Board Financial Accounting CLEP Exam.

**Principles of Business Management and Entrepreneurship ◆ A**
841113  
Level: 3  
Credit: 1.0  
SCED: 12961

This course provides students a foundational understanding of the role of business in a global society, American business as a dynamic process, forms of business ownership, management concepts, marketing, production and distribution, and accounting and finance. Along with a brief historical perspective, business terminology and principles will be emphasized. Students will learn to analyze the functions of business through evaluating, planning, organizing, and controlling.

**Principles of Accounting and Finance ◆ A**
834133  
Level: 3  
Credit: 1.0  
SCED: 12941

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 to 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 systems for service and merchandising business. Students will apply appropriate accounting principles to payroll and tax liabilities.

*Advanced Accounting ◆ A*
834143  
Level: 3  
Credit: 1.0  
SCED: 12942  
*Concentrator*
Prerequisite: Principles of Business Management and Entrepreneurship

This course focuses on accounting procedures necessary to address long and short-term assets and investments, long and short-term liabilities, inventory management and accounting ratios used in 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, distribution of net income, and owners’ equity statements is included in this course.

**Accounting and Finance Capstone ◆**
834153  
Level: 3  
Credit: 1.0  
SCED: 12943
Prerequisite: Advanced Accounting

During this course, 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 intense problem-solving in accounting and finance.
Students begin the Marketing Program with two foundation courses, which are taken at the home schools: Principles of Business Management and Entrepreneurship and Principles of Accounting and Finance. The Marketing Pathway provides students with knowledge of the consumer’s role, research in global marketing, developing a marketing plan, and the importance of ethics and social responsibility. The Marketing Program recommends that students take advantage of work study, mentorship, internship, and job shadowing opportunities. Students will also benefit from involvement in the national professional organization Future Business Leaders of America (FBLA). This program has a college credit opportunity through the College Board Marketing CLEP Exam.

### Principles of Business Management and Entrepreneurship

**Course Number:** 841113  
**Level:** 3  
**Credit:** 1.0  
**SCED:** 12961

This course provides students a foundational understanding of the role of business in a global society, American business as a dynamic process, forms of business ownership, management concepts, marketing, production and distribution, and accounting and finance. Along with a brief historical perspective, business terminology and principles will be emphasized. Students will learn to analyze the functions of business through evaluating, planning, organizing, and controlling.

### Principles of Accounting and Finance

**Course Number:** 834133  
**Level:** 3  
**Credit:** 1.0  
**SCED:** 12941

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 to 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 systems for service and merchandising business. Students will apply appropriate accounting principles to payroll and tax liabilities.

### Introduction to Marketing

**Course Number:** 845223  
**Level:** 3  
**Credit:** 1.0  
**SCED:** 12921  
**Prerequisite:** Principles of Business Management and Entrepreneurship

This course introduces the student to the essential concepts of marketing theory and the foundations, functions and benefits of marketing in a free enterprise system. Throughout this course, students will use and incorporate technologies to conduct research and communicate. In addition, students will investigate the various and ever-improving alternatives for electronic marketing. Students will integrate their knowledge of legal issues, the importance of ethics, and social responsibilities in marketing.

### Advanced Marketing

**Course Number:** 845233  
**Level:** 3  
**Credit:** 1.0  
**SCED:** 12922  
**Prerequisite:** Introduction to Marketing

This course builds on all of the concepts studied in Introduction to Marketing by giving the students in-depth, comprehensive project-based learning opportunities. Students will apply their understanding of consumer buying behavior and relationships; the tools and techniques used by organizations that identify the factors that influence marketing strategy decisions; market segmentation and target marketing; and other considerations in order to create a written professional marketing plan.
Students begin the Business Administrative Services Program with two foundation courses, which are taken at the home schools: Principles of Business Management and Entrepreneurship and Principles of Accounting and Finance. The Business Administrative Services Pathway provides students with knowledge of how to effectively utilize technology in the analysis, and communication of ideas; and the management, organization, and examination of information for strategic business decision making. Upon completion of the two foundation courses, students are required to complete Office Systems Management I and Office Systems Management II. The second course in the sequence includes coursework in Microsoft Office Applications preparing students for Microsoft Office Specialist (MOS) Certification, a globally recognized credential desired by academia and business. The Business Administrative Services Program recommends that students take advantage of work study, mentorship, internship, and job shadow opportunities. Students will also benefit from involvement in the national professional organization Future Business Leaders of America (FBLA). This program has an opportunity for students to earn the Microsoft Office Specialist certifications.

**Principles of Business Management and Entrepreneurship ♦ A**

841113  Level: 3  Credit: 1.0  SCED: 12961

This course provides students a foundational understanding of the role of business in a global society, American business as a dynamic process, forms of business ownership, management concepts, marketing, production and distribution, and accounting and finance. Along with a brief historical perspective, business terminology and principles will be emphasized. Students will learn to analyze the functions of business through evaluating, planning, organizing, and controlling.

**Principles of Accounting and Finance ♦ A**

834133  Level: 3  Credit: 1.0  SCED: 12941

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 to 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 systems for service and merchandising business. Students will apply appropriate accounting principles to payroll and tax liabilities.

*Office Systems Management I ♦*

842123  Level: 3  Credit: 1.0  SCED: 12910  *Concentrator*

Prerequisite: Principles of Business Management and Entrepreneurship

This course 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 skill development is incorporated throughout the course.

*Office Systems Management II ♦*

842133  Level: 3  Credit: 1.0  SCED: 12911

Prerequisite: Office Systems Management I

During this course, students will develop advanced skills using Microsoft’s leading business desktop software focusing on MS Word (MOS) and MS Excel. 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.

A – Articulated Credit  T – Transcripted Credit

Students can enter program in 9th, 10th or 11th grade.

This business pathway may not be offered at all home high schools.
### Construction and Development Cluster

#### Construction Design & Management Program

**Students can enter program in 10th, 11th, or 12th grade.**

During the Construction Design & Management Program, students will develop an understanding of the built world through the design and construction process. Each course uses a project-based learning approach to advance students’ understanding of the design-build-maintain process. Advanced architectural drafting and design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). Throughout the program, students will develop a portfolio to demonstrate knowledge of each phase of the design and construction management process. **This program has an opportunity for students to earn AutoCAD and Revit certifications.**

**Introduction to Construction and Design ♦ A**

822103  Level: 3  Credits: 1.0  
SCED: 21931

*This course is taught for 9 weeks in a 130 minute block.*

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 material; 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 field’s interrelationships.

**Principles of Construction Design ♦ A**

822113  Level: 3  Credits: 1.0  
SCED: 21932

Prerequisite: Introduction to Construction and Design

*This course is taught for 9 weeks in a 130 minute block.*

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.

**Advanced Design and 3-D Modeling ♦ A**

822123  Level: 3  Credits: 1.0  
SCED: 21933

*Concentrator*

Prerequisite: Principles of Construction Design

*This course is taught for 9 weeks in a 130 minute block.*

This course allows students to work in teams to fully develop designs and a construction management plan for a pre-determined site. Students begin with the legal description and topography of the site and develop 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.

**Advanced Construction Management ♦ A**

822133  Level: 3  Credits: 1.0  
SCED: 21934

Prerequisite: Advanced Design and 3-D Modeling

*This course is taught for 9 weeks in a 130 minute block.*

This 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 development projects from existing plans. The semester-long project will focus on building codes and standards, coordination of the construction process, estimating, planning and scheduling; and site management.

**FAST FACTS:** Median income range in this field is $52,720-$87,400 with employment opportunities expected to grow 5 percent in the next decade.
Construction and Development Cluster

Carpentry Program
Students can enter program in 10th, 11th, or 12th grade.

Carpenters make up the largest building trades occupation in the industry and those with all-around skills are in high demand. Carpenters construct, erect, install, and repair structures and fixtures made from wood and other materials. The Carpentry Program provides students with an opportunity to learn about the building industry. Students master a variety of construction skills related to safety, construction theory, and material and equipment use. Students will also be exposed to new technologies including green building, alternative energies, and weatherization. Knowledge gained by students in this program is applied in lab-based construction projects. The program is affiliated with the National Center for Construction Education and Research (NCCER). Students are administered online NCCER assessments after each module of study to earn the Intro Craft Skills and the Level I certifications.

Foundations of Building and Construction Technology: Carpentry (NCCER CORE) ♦
822263 Level: 3 Credits: 1.0
SCED: 17961
This course is taught for 9 weeks in a 130 minute block.

During this course, students will learn the basic elements of the building industry. The course modules, which are taught and assessed through NCCER are: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Construction Drawings, Basic Communication Skills and Basic Employability Skills.

Carpentry/Construction Technology I ♦
804113 Level: 3 Credits: 1.0
SCED: 17965
Prerequisite: Foundations of Building and Construction Technology (NCCER CORE)
This course is taught for 9 weeks in a 130 minute block.

During this course, students will learn trade competencies to help them become employable in the building trades. The course modules, which are taught and assessed through NCCER are: Introduction to Material Handling; Orientation to the Trade; Building Materials, Fasteners, and Adhesives; Hand and Power Tools; Reading Plans and Elevations; Floor Systems; Wall and Ceiling Framing; Roof Framing; Introduction to Concrete, Reinforcing Materials, and Forms; Windows and Exterior Doors; and Basic Stair Layout.

*Carpentry/Construction Technology II ♦ A
804123 Level: 3 Credits: 2.0
SCED: 17966 *Concentrator
Prerequisite: Carpentry /Construction Technology I
This course is taught for a semester in a 130 minute block.

During this course, students will expand their knowledge of construction and work on building projects that use higher level skills. The course modules, which are taught and assessed through NCCER are: Commercial Drawings; Cold-Formed Steel Framing; Exterior Finishing; Thermal and Moisture Protection; Roofing Applications; Doors and Door Hardware; Drywall Installation; Drywall Finishing; Suspended Ceilings; Window, Door, Floor, and Ceiling Trim; and Cabinet Installation.

Carpentry III ♦ A
804153 Level: 3 Credits: 2.0
SCED: 17980
Prerequisite: Carpentry II and Teacher Recommendation
This course is taught for a semester in a 130 minute block.

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry.

FAST FACTS:
• The median annual income for carpenters is $42,090.
• Employment of carpenters is projected to grow 6 percent from 2016 to 2024. Increased levels of new homebuilding and remodeling activity will require more carpenters.

♦ - Weighted Class  DE - Dual Enrollment Credit  A – Articulated Credit  T – Transcribed Credit
The Renewable Energies Program offers students in-depth, hands-on knowledge of green technologies, and environmental impacts. The program focuses on exploring the relationship between Science, Technology, Society, and Energy. **Students have an opportunity to earn NCCER certifications.**

**Foundations of Building and Construction Technology: Renewable/Electrical ♦ A**
817223 Level: 3 Credits: 1.0
SCED: 17961

During this course, students will receive fundamental instruction in the green environment, green construction practices, and green building rating systems (LEED). This course also provides an overview of the materials and techniques used in constructing buildings to reduce thermal loss. The building science knowledge and specialized techniques learned from this program will provide students with the skills necessary to perform audits and weatherization installations.

**Wind Energy Technology ♦ A**
817123 Level: 3 Credits: 1.0
SCED: 17972
Prerequisite: Found. of Renewable Energies/ Green Tech.

During this course, students will be introduced to wind energy systems. Key content includes: Introduction to Wind Energy, Introduction to Wind Turbine Safety, Climbing Wind Towers, Introduction to Electrical Circuits, Electrical Theory, Electrical Test Equipment, Electrical Wiring, Alternating Current and Three-Phase Systems, Circuit Breakers and Fuses, Switching Devices, Power Distribution Systems, Fasteners and Lubrication.

**Solar Energy Technology ♦ A**
817113 Level: 3 Credits: 1.0
SCED: 17973
Prerequisite: Wind Energy Technology

During this course, students will receive fundamental instruction in the basic concepts of PV systems and their components along with general sizing and electrical/mechanical design requirements, installation and monitoring. Basic solar theory will be introduced. Topics of study include, but are not limited to, site assessment, system design, installation, inspection, maintenance, and troubleshooting. Students will also receive fundamental instruction in the basic concepts of solar thermal systems, their components, installation and maintenance practices.

**Advanced Solar and Wind Energy Generation ♦**
817233 Level: 3 Credits: 1.0
SCED: 17980
Prerequisites: Wind Energy Technology & Solar Energy Technology

During this course, students will receive advanced instruction in the concepts of Solar PV and Small Wind systems and their components, along with general sizing and electrical/mechanical design requirements. The students will cover advanced electrical theory, as well as the applicable NEC.

**Renewable Energies Field Experience or Civic Engagement Activity (optional) ♦**
817143 Level: 3 Credits: 1.0
SCED: 17983
Prerequisite: Advanced Solar and Wind Energy Generation

This is an elective course where students either engage in an authentic field experience or a civic engagement activity.

**FAST FACTS:** Median income range in this field is $37,830-$51,050 with employment opportunities expected to grow between 24% and 104% in the next decade.
The Electrical Program offers students in-depth, hands-on knowledge of the electrical trade, green technologies, and environmental impacts. The program focuses on exploring the relationship between Science, Technology, Society, and Energy. **Students have an opportunity to earn NCCER certifications.**

**Foundations of Building and Construction Technology: Renewable/Electrical ♦ A**
817223  Level: 3  Credits: 1.0
SCED: 17961

During this course, students will receive fundamental instruction in the green environment, green construction practices, and green building rating systems (LEED). This course also provides an overview of the materials and techniques used in constructing buildings to reduce thermal loss. The building science knowledge and specialized techniques learned from this program will provide students with the skills necessary to perform audits and weatherization installations.

**Electrical I ♦**
803303  Level: 3  Credits: 1.0
SCED: 465300
Prerequisite: Foundations of Building and Construction Technology (NCCER CORE): Renewable Energies/Electrical

Students are introduced to the electrical trade through topics of study including electrical safety, electrical theory, electrical circuitry, the National Electrical Code, and device boxes. Students receive an overview of the electrical trade and culture regarding history, job opportunities, and responsibilities and characteristics an electrician should possess. Students will also begin constructing basic residential wiring circuits.

**Electrical II ♦**
803313  Level: 3  Credits: 1.0
SCED: 465300

Students demonstrate mastery of topics of study including alternating currents electrical light, motors conduit bending pull and junction boxes conductor installation cable tray conductor termination and slices grounding and bonding circuit breakers and fuses control systems and fundamental concepts.

**Electrical Field Experience or Civic Engagement Activity ♦**
817143  Level: 3  Credits: 1.0
SCED: 17983
Prerequisite: Advanced Solar and Wind Energy Generation

This is an elective course where students either engage in an authentic field experience or a civic engagement activity.

**FAST FACTS:** Median income range in this field is $37,830-$51,050 with employment opportunities expected to grow between 24% and 104% in the next decade.
If building something that will last for generations is attractive, then Masonry is a career to consider. Students enrolled in the Masonry Program will learn to layout and build structures made with brick, blocks, stone and mortar, as well as work with concrete, and tile. Students will learn the different techniques for laying bricks, blocks, and stones, using the many different tools of the trade along with the safe operation of masonry power equipment. Reading blueprints and estimation of all different materials used for the masonry trade are covered as well. Knowledge gained by students in this program is applied in lab-based construction projects. The program is affiliated with the National Center for Construction Education and Research (NCCER). Students are administered online NCCER assessments after each module of study to earn the Intro Craft Skills and the Level I certifications.

**Foundations of Building and Construction Technology: Masonry (NCCER CORE)**

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*This course is taught for 9 weeks in a 130 minute block.*

This course focuses on the basic elements of the building industry. The course modules, which are taught and assessed through NCCER are: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Construction Drawings, Basic Communication Skills and Basic Employability Skills.

**Masonry I**

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<td>SCED: 17963</td>
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</table>

Prerequisite: FBCT (CORE)

*This course is taught for 9 weeks in a 130 minute block.*

This course includes the following topics: Introduction to Masonry; Safety Requirements; Tools and Equipment; Mathematics, Drawings, and Specifications; Mortar; and Masonry Units and Installation Techniques.

**Masonry II**

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*Concentrator*

Prerequisite: Masonry I

*This course is taught for a semester in a 130 minute block.*

This course includes the following topics: Residential Plans and Drawings Interpretation, Residential Masonry, Grout and Other Reinforcement, Metal Work in Masonry, Advanced Laying Techniques, Construction Techniques and Moisture Control, Elevated Work, and Construction Inspection and Quality Control.

**Masonry III**

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Prerequisite: Masonry II and Teacher Recommendation

*This course is taught for a semester in a 130 minute block.*

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry.

**FAST FACTS:**

- The median annual income for masonry workers is $39,640.
- Employment of masonry workers is projected to grow 15 percent from 2016 to 2024, much faster than the average for all occupations. Population growth will result in the construction of more schools, hospitals, homes, and other buildings.
Construction and Development Cluster

Heating, Ventilation, Air Conditioning & Refrigeration (HVACR)
Students can enter program in 10th, 11th, or 12th grade.

The Heating, Ventilation, Air Conditioning & Refrigeration (HVACR) Program provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to the industry. The program is affiliated with the National Center for Construction Education and Research (NCCER). Students are administered online NCCER assessments after each module of study to earn the Intro Craft Skills and the Level I certifications.

**Foundations of Building and Construction Technology: HVACR (NCCER CORE)**
822243  Level: 3  Credits: 1.0
SCED: 17961
*This course is taught for 9 weeks in a 130 minute block.*

This course focuses on the basic elements of the building industry. The course modules, which are taught and assessed through NCCER are: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Construction Drawings, Basic Communication Skills and Basic Employability Skills.

**HVACR I**
810203  Level: 3  Credits: 1.0
SCED: 17969
Prerequisite: FBCT (CORE)
*This course is taught for 9 weeks in a 130 minute block.*

This course provides students the opportunity to learn about the industry as it relates to residential and commercial building. Students master a variety of HVACR skills: trade mathematics, tools of the trade, copper and plastic piping practices, soldering and brazing, ferrous metal piping, basic electricity, introduction to cooling and introduction to heating.

**HVACR II**
810213  Level: 3  Credits: 2.0
SCED: 17970  *Concentrator*
Prerequisite: HVACR I
*This course is taught for a semester in a 130 minute block.*

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry including, but not limited to, accessories and optional equipment, planned maintenance, and troubleshooting of HVACR devices and appliances.

**FAST FACTS**
- The median annual income for heating, air conditioning, and refrigeration mechanics and installers is $45,110.
- Employment of heating, air conditioning, and refrigeration mechanics and installers is projected to grow 14 percent from 2016 to 2024, much faster than the average for all occupations. Candidates familiar with computers and electronics and those with good troubleshooting skills will have the best job opportunities as employers continue to have difficulty finding qualified technicians to install, maintain, and repair complex new systems.

- Weighted Class  DE - Dual Enrollment Credit  A – Articulated Credit  T – Transcripted Credit
The Welding Program provides students an opportunity to learn about the industry as it relates to welding. Students master a variety of welding skills including oxyfuel cutting and welding including SMAW, GTAW, GMAW, and OFW. The program is affiliated with the National Center for Construction Education and Research (NCCER). Students are administered online NCCER assessments after each module of study to earn the Intro Craft Skills and the Level I certifications. NCCER meets the American Welding Society (AWS) Entry Level Welder - Phase One and Phase Two requirements of the AWS QC-10 and AWS EG2.0-95 guidelines.

**Foundations of Building and Construction Technology: Welding (NCCER CORE)**

- **Code:** 822253  
  - **Level:** 3  
  - **Credits:** 1.0  
  - **SCED:** 17961

*This course is taught for 9 weeks in a 130 minute block.*

This course focuses on the basic elements of the building industry. The course modules, which are taught and assessed through NCCER are: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Construction Drawings, Basic Rigging, Basic Communication Skills and Basic Employability Skills.

**Welding I**

- **Code:** 819103  
  - **Level:** 3  
  - **Credits:** 1.0  
  - **SCED:** 17976  
  - **Prerequisite:** FBCT (CORE)

*This course is taught for 9 weeks in a 130 minute block.*

This course begins the training in the oxy-acetylene and shielded metal arc welding processes. Throughout the program, emphasis is placed on all aspects of welding safety. Students perform torch fusion welding and brazing, and basic Shielding Metal Arc Welding (SMAW). Students also experience the processes of cutting metal using the oxy-acetylene cutting torch and the plasma arc cutting system.

**Welding II**

- **Code:** 819113  
  - **Level:** 3  
  - **Credits:** 2.0  
  - **SCED:** 17977  
  - **Prerequisite:** Welding I

*This course is taught for a semester in a 130 minute block.*

This course allows students to advance their skills in the SMAW process including performing out-of-position welding. They train in the Mig welding process using both solid core and flux core welding wire. Students also begin the Tig process by welding carbon steel, aluminum, and stainless steel. Theory instruction includes basic metallurgy, blueprint reading, and the knowledge and use of weld symbols.

**Welding III**

- **Code:** 819123  
  - **Level:** 3  
  - **Credits:** 2.0  
  - **SCED:** 17980  
  - **Prerequisite:** Welding II and Teacher Recommendation

*This course is taught for a semester in a 130 minute block.*

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry.

**FAST FACTS:**

- The median annual income for welders, cutters, solderers, and brazers is $38,150.
- Employment of welders, cutters, solderers, and brazers is projected to grow 4 percent from 2016 to 2024.
- The Bureau of Labor Statistics groups underwater welders under the job category of commercial divers. These divers work below the surface of water, using scuba gear to inspect, repair, remove, or install equipment and structures. They use a variety of power and hand tools, including welding equipment. The average pay for a commercial diver is $58,640 a year. The highest-paid 10 percent average is $94,630 a year.
The Culinary Program provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to professional cooking. The curriculum is accredited by the American Culinary Federation (ACF). Students have the opportunity to earn the Certified Junior Culinarian (CIC) by passing the National Occupational Competency Testing Institute (NOCTI) written and performance assessments.

**Foundations of Professional Cooking: Part A ♦ A**

807003  Level: 3  Credits: 1.0
SCED: 16958

*This course is taught for 9 weeks in a 130 minute block.*

This course is the introduction to the fundamental concepts and techniques used in the profession of culinary arts. Students will receive hands-on clinical experience through school-based enterprises, giving the student the opportunity to develop technical skills required in future culinary and baking courses as well as the food service industry. Students will be introduced to professional standards of the industry, safety and sanitation procedures, knife skills, including handling and care, cooking processes and procedures, product identification, vocabulary and terminology, industry equipment, recipe costing, and quantity adjustments.

**Foundations of Professional Cooking: Part B ♦ A**

807004  Level: 3  Credits: 1.0
SCED: 16959

*This course is taught for 9 weeks in a 130 minute block.*

This course is a continuation of the fundamental concepts and techniques learned in Part A. Students will receive hands-on clinical experience through school-based enterprises, giving the student the opportunity to develop technical skills required in future culinary and baking courses as well as the food service industry. Students will be introduced to professional standards of the industry, safety and sanitation procedures, knife skills, including handling and care, cooking processes and procedures, product identification, vocabulary and terminology, industry equipment, recipe costing, and quantity adjustments.

**Professional Cooking ♦ A**

807213  Level: 3  Credits: 2.0
SCED: 16962  *Concentrator*

Prerequisite: Foundations of Professional Cooking

*This course is taught for a semester in a 130 minute block.*

This course continues students’ study in fundamental concepts, techniques, theories, ingredients, and methodologies involved in the preparation of basic menu items. Students rotate through food handling methods and techniques, portion control, costing, production, plating and garnishing of soups, salads, starches, vegetables, and entrees. Students participate in demonstrations, group exercises and school-based enterprises to supplement developments of technical knowledge and skills.

**FAST FACTS:**

- The median annual income for chefs and head cooks is $41,500.

- The median annual income for food preparation workers is $20,180.

- Employment of chefs and head cooks is projected to grow 9 percent from 2016 to 2024.

- Employment of food preparation workers is projected to grow 6 percent from 2016 to 2024.
The Baking and Pastry Program explores the fundamental concepts and techniques in baking. Students will be instructed in the fundamentals of baking science, terminology, equipment, ingredients, weights and measurements, formula conversion and costing of recipes while maintaining the professional standards of the foodservice industry. Students have the opportunity to earn the Certified Junior Culinarian (CJC) by passing the National Occupational Competency Testing Institute (NOCTI) written and performance assessments.

**Foundations of Professional Cooking: Part A ♦ A**
807003 Level: 3 Credits: 1.0
SCED: 16958
*This course is taught for 9 weeks in a 130 minute block.*

This course is the introduction to the fundamental concepts and techniques used in the profession of culinary arts. Students will receive hands-on clinical experience through school-based enterprises, giving the student the opportunity to develop technical skills required in future culinary and baking courses as well as the food service industry. Students will be introduced to professional standards of the industry, safety and sanitation procedures, knife skills, including handling and care, cooking processes and procedures, product identification, vocabulary and terminology, industry equipment, recipe costing, and quantity adjustments.

**Foundations of Professional Cooking: Part B ♦ A**
807004 Level: 3 Credits: 1.0
SCED: 16959
*This course is taught for 9 weeks in a 130 minute block.*

This course is a continuation of the fundamental concepts and techniques learned in Part A. Students will receive hands-on clinical experience through school-based enterprises, giving the student the opportunity to develop technical skills required in future culinary and baking courses as well as the food service industry. Students will be introduced to professional standards of the industry, safety and sanitation procedures, knife skills, including handling and care, cooking processes and procedures, product identification, vocabulary and terminology, industry equipment, recipe costing, and quantity adjustments.

**Professional Baking and Pastry**
807233 Level: 3 Credits 2.0
SCED: 16963 *Concentrator
*This course is taught for a semester in a 130 minute block.*

This course explores the fundamental concepts and techniques in baking. Students will be instructed in the fundamentals of baking science, terminology, equipment, ingredients, weights and measurements, formula conversion and costing of recipes while maintaining the professional standards of the foodservice industry. Students will prepare a variety of baked goods including breads, rolls, cakes, pies, and cookies. Students participate in demonstrations, group exercises and school-based enterprises to supplement the students’ development of technical skills and knowledge.

**FAST FACTS:**
- The median annual income for a pastry chef ranges from $24,170 - $41,000.
- Employment of pastry chefs is projected to grow 7 percent from 2016 to 2024.

84 ♦ - Weighted Class  DE - Dual Enrollment Credit  A – Articulated Credit  T – Transcripted Credit
The Hospitality and Tourism Management Program, developed by the American Hotel and Lodging Educational Institute, can launch a career in the hospitality and tourism industry long recognized as a major driver of economic growth and development. **During this program, students have the opportunity to earn the Certified Hospitality Tourism Management Professional (CHTMP) certification and the Guest Service Gold certification.**

**Principles of Hospitality and Tourism  ♦  A**  
818203  Level: 3  Credits: 1.0  
SCED: 16920

This course explores the importance of the hospitality and tourism industry in local and regional economies and identifies a variety of businesses that make up the hospitality and tourism industry. Students will be able to articulate how a seamless guest experience is managed by employees and the property, demonstrate the use of communications skills (both written and oral) when communicating to employees and guests, and explain how to implement and consistently use financial controls for labor costs, food costs, menu pricing and cash control in a food and beverage operation.

**Hospitality and Tourism Management  ♦  A**  
818243  Level: 3  Credits: 1.0  
SCED: 16922  *Concentrator  
Prerequisite: Hospitality Marketing

This course focuses 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 Work-Based Learning Experience  ♦**  
818153  Level: 3  Credits: 1.0  
SCED: 16988  
Prerequisite: Hospitality and Tourism Management

Students participating in an internship will be placed in a professional setting under the supervision of a Hospitality and Tourism Management Professional. The internship includes a minimum of 100 hours, which may be paid or unpaid. This experience is directed by an agreement developed by the HTMP instructor, the work-based learning coordinator, the employer and the student. The agreement identifies the appropriate competencies, duties and tasks in academic, technical and work readiness areas that apply directly to students’ goals in establishing a career in the hospitality industry.

**FAST FACTS:** Median income range in this field is $49,720 with employment opportunities expected to grow 10 percent in the next decade.
The Cosmetology Program provides students with opportunities to develop the knowledge and skills required to pass the Maryland State Board Examination to be a licensed cosmetologist. Students begin Cosmetology in the 10th grade in order to complete the clock hour requirements, the rigorous job-imbedded skill practice, and the mandatory state licensing theory and practical assessments in the senior year.

**Principles and Practice of Cosmetology Part A (Sophomores)**

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**Principles and Practice of Cosmetology Part B (Juniors)**

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This course is taken for **two semesters** in spring of sophomore year and fall of junior year. Each semester course is delivered in a 130 minute block for 2 credits.

This course provides an introduction to the field of cosmetology. Students develop and practice basic skills in cosmetology; develop a broad understanding of the variety of career options available to a licensed cosmetologist; and learn how science and math is a fundamental aspect of the practice of cosmetology. Upon completion of this course students will be able to describe the properties of the hair, skin and nails; perform a basic manicure and pedicure; perform the techniques of shampooing, rinsing and conditioning hair; demonstrate the proper use of haircutting tools, techniques, and the principles of hair design; demonstrate proper safety and infection control procedures; and apply the foundation knowledge of anatomy, physiology and chemistry and how it relates to the practice of cosmetology.

**Advanced Cosmetology: Theory & Application**

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This course is taken for one semester in spring of junior year. The semester course is delivered in a 130 minute block for 2 credits.

This course allows students to demonstrate various facial treatments; perform various massage and manipulation techniques; perform a make-up application; demonstrate a hair press and thermal style; select, apply and explain various hair coloring and lightening techniques; and explain and demonstrate the proper technique for hair braiding.

**Mastery of Cosmetology**

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<td>SCED: 19913</td>
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*Concentrator
Prerequisite: Advanced Cosmetology: Theory and Application

This course is taught for one semester in senior year. The semester course is delivered in a 130 minute block for 2 credits.

This course will assist in preparing students to pass the State Board of Cosmetologists’ licensing examination. Upon completion of this course, students will be able to apply the fundamentals of small business management and demonstrate the skills necessary for transition from school to a professional setting.

**Clinical Experience in Cosmetology**

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<td>SCED: 22963</td>
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Prerequisite: Advanced Cosmetology: Theory and Application

This experience in a professional salon takes place in the spring of senior year. This placement is half-a-day for a semester. It is the student’s responsibility to obtain a placement to practice advanced techniques in cosmetology. A minimum of 270 hours must be completed in this experience.

**FAST FACTS:** Median income range in this field is $30,090 with employment opportunities expected to grow 12 percent in the next decade.

A – Articulated Credit  
T – Transcripted Credit
# Environmental, Agriculture & Natural Resources

## Agriculture Science

Students can enter program in 9th, 10th or 11th grade.

The Agriculture Science Program provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to agriculture. This inquiry-based program incorporates classroom learning, FFA leadership and career development, as well as outside of the classroom experiences.

### Introduction to Agriculture, Food and Natural Resources

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This course is structured to enable all students to have a variety of experiences that will provide an overview of the fields of agricultural science and natural resources. Students will study communication methods, science processes, natural resources, plants and animals, and agricultural mechanic. 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.

### Principles of Agriculture Science – Animal

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Prerequisite: Introduction to Agriculture Science

This course is designed to engage students in hands-on laboratories and activities to explore the world of animal agriculture. Student experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective career, communicating their solutions to their peers and members of the professional community.

### Principles of Agriculture Science – Plant

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Prerequisite: Principles of Agricultural Science – Animal or Plant

This course addresses the agricultural implications of the science of biotechnology. Emphasis is placed on biochemistry, regulations, laws and ethics, and safety and laboratory techniques. Emerging technologies including, but not limited to, DNA/Gene transfer, microbial, and transgenic material are investigated. Careers in biotechnology and the impact of biotechnology on society are studied.

### Animal and Plant Biotechnology

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*Concentrator*

Prerequisite: Principles of Agricultural Science – Animal or Plant

This course addresses the agricultural implications of the science of biotechnology. Emphasis is placed on biochemistry, regulations, laws and ethics, and safety and laboratory techniques. Emerging technologies including, but not limited to, DNA/Gene transfer, microbial, and transgenic material are investigated. Careers in biotechnology and the impact of biotechnology on society are studied.

### Agricultural Business: Research & Development

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Prerequisite: Animal and Plant Biotechnology

This capstone course in the CASE sequence includes team project application in agribusiness and management, research, development and design, and leadership qualities in agriculture science.

### FAST FACTS:

- Median income range in this field is $64,170 with employment opportunities expected to grow 5 percent in the next decade

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- **Weighted Class**
- **DE** - Dual Enrollment Credit
- **A** – Articulated Credit
- **T** – Transcripted Credit
Horticulture Program
Students can enter program in 9th, 10th, or 11th grade.

This Horticulture program is based upon the content of the Certified Professional Horticulturist (CPH) certification that is used by the Maryland “Green Industry” and consists of four courses (4 credits) that include rigorous academics, broad cluster knowledge and skills, as well as technical knowledge related to the horticulture industry. These courses have been identified and developed with industry, postsecondary and secondary partners. The courses include: Foundations of Horticulture, Plant Production, Landscape Design and Management, and a capstone experience. **Students will have the opportunity to earn the Certified Professional Horticulturalist (CPH) industry certification.**

**Foundations of Horticulture ♦**
800103 Level: 3 Credits: 1.0
SCED: 18961

This course provides students with foundation, knowledge and skills necessary to pursue careers in the horticultural industry. Through theory, instruction and hands on experiences, students are introduced to the concepts of: plant growth and development, plant nomenclature, use of plants in landscape settings, the effect invasive species have on the landscape, principles and components of Integrated Pest Management (IPM) in controlling insects, diseases, and weeds. Additionally, the student becomes aware of career opportunities within the green industry and the economic value of horticulture crops, products, and related services.

**Plant Production ♦**
800113 Level: 3 Credits: 1.0
SCED: 18962
Prerequisite: Foundations of Horticulture

This course builds on students’ prior knowledge of basic plant science. Students will successfully plan, produce, and sell greenhouse and nursery crops. Students will learn how to monitor and maintain proper growing conditions, and use Integrated Pest Management (IPM) strategies and environmentally sound practices necessary for producing healthy crops. Students will complete a business plan including product cost, pricing, marketing, display and sale of plants.

**Landscape Design and Management ♦**
800123 Level: 3 Credits: 1.0
SCED: 18963
*Concentrator
Prerequisite: Plant Production

This course provides students an opportunity to prepare and implement landscape designs based on a broad range of settings. Students will prepare designs including site analysis, collecting and using various field measurements, preliminary and final plans, and preparing cost estimates. Students will apply the principles of design, use drafting tools and techniques, and prepare various types of design views to present finished landscape designs. Students will select proper plants, planting techniques and install hardscapes and softscapes within the landscape design. Students will install and maintain lawns, identify harmful weeds, insects, and diseases. Students will maintain a landscape by applying techniques for mulching, watering, pruning, and pest control.

**Capstone Experience ♦**
801133 Level: 3 Credits: 1.0
SCED: 18964
Prerequisite: Landscape Design and Management

This work-based learning experience takes place at the work-site within the horticulture industry. It may be paid or unpaid. This experience is directed by the Work-based learning (WBL) agreement and plan developed in partnership with the student, WBL coordinator, CPH instructor, and employer.
Environmental Studies/Natural Resources Program
Students can enter program in 10th or 11th grade.

The Environmental Studies Program covers environmental, agricultural and regional environmental problems and issues in natural resource management. Students will be introduced to a variety of technologies and techniques related to environmental research, including remote sensing, ecological monitoring, and analytic testing. This program also emphasizes environmental ethics involved in making decisions that impact local ecosystems and the ability of communities to live sustainably in the region. **Students have the opportunity to earn 3 credits in Environmental Biology awarded by Towson University for successful completion of the program.**

**Human Ecology and Environmental Problem Solving ♦**
801313  Level: 3  Credits: 1  SCED: 18951
Prerequisite or Co-requisite: Biology

This course focuses on interdisciplinary study of environmental problems and dilemmas related to population growth, energy usage, air, land and water pollution, commercial agriculture, and biodiversity loss in their communities, the state and the region. These problems and dilemmas will be used to explore science topics such as biogeochemical cycles, hydrology, geology, ecology and climatology. They will explore EANR related careers and investigate one or more of these careers based on individual interests.

**Natural Resource Management ♦**
801323  Level: 3  Credits: 1  SCED: 18952
Prerequisite: Human Ecology and Environmental Problem Solving

This course explores existing and emerging principles of sustainable environmental management such as the precautionary principle, pollution prevention and wingspread principles. Students will participate in field experiences to enhance learning. Students will learn relevant laboratory and field-based sampling techniques for evaluating ecological conditions and adaptive management principles for conversation.

**Environmental Technologies and Techniques ♦**
801333  Level: 3  Credits: 1  SCED: 18953  *Concentrator
Prerequisite: Natural Resource Management

This course focuses on emerging and renewable technologies (Design for the Environment, LEED, carbon auditing, pollution credits, resources shared, wind and solar power), techniques in watershed and landscape restoration, environmental technologies including those related to remote sensing, ecological monitoring and analytic testing. Students will explore and critically evaluate the role of technology in preventing, controlling mitigating and remediating environmental problems and issues.

**Environmental and Natural Resource Research and Ethics ♦**
801343  Level: 3  Credits: 1  SCED: 18954
Prerequisite: Environmental Technologies and Techniques

This course focuses on developing critical thinking, communication skills and knowledge of ethics related to EANR issues. Topics will include both plant and animal biomedical research; genetically engineered cells; the use, distribution and availability of natural resources across populations. Students will engage in topics and communicate the findings and implications of their research to appropriate audiences. Students will explore the interplay of economic, social, political independent research on current environmental and cultural aspects of EANR problems and issues, and propose ethical, data-driven solutions.

♦ - Weighted Class  DE - Dual Enrollment Credit  A – Articulated Credit  T – Transcripted Credit
The Nursing Program provides students opportunities to develop the knowledge and skills required to function in all aspects of the health occupation industry. **Students have the opportunity to become a Certified Nursing Assistant.**

**Structure and Functions of the Human Body ★**
855203  Level: 3  Credits: 1.0  SCED: 14972

This course offers an introduction to the structure and function of the human body, including cellular biology and histology. Systematic study involves homeostatic mechanisms of the integumentary, skeletal, muscular and nervous systems, including special senses. Laboratory study encompasses gross and microscopic anatomy of these systems, with dissection and selected experiments in physiology.

**Foundations of Medical and Health Science ★**
855103  Level: 3  Credits: 1.0  SCED: 14971

This course is designed to provide students with an overview of the therapeutic, diagnostic, environmental and information systems of the healthcare industry.

**Nursing Assisting ★ A**
802103  Level: 3  Credits: 1.0  SCED: 14973  *Concentrator*

Prerequisite: Structure and Functions of the Human Body and Foundations of Medical and Health Science

This course requires students to function as nursing assistants in a variety of health care situations. The content of the course includes principles of law and ethics for health care workers, medical terminology, basic nursing care skills, and anatomy and physiology of the human body in both states of wellness and disease. Students will also learn basic life saving techniques used in first aid and CPR. Emphasis is on recognizing signs and symptoms and activating the Emergency Medical System (EMS). Students acquire knowledge and skills to perform basic first aid and American Heart Association certification in adult, infant, and child CPR. The American Heart Association strongly promotes knowledge and proficiency in BLS and has developed instructional materials for this purpose. Use of these materials in an educational course does not represent course sponsorship by the American Heart Association. Any fee charged for such a course, except for a portion of fees needed for AHA course material, do not represent income to the Association.

**Advanced Nursing Assisting Clinical Internship ★ A**
802113  Level: 3  Credits: 2.0  SCED: 14977

Prerequisite: Nursing Assisting

Students will acquire advanced knowledge and nursing skills by participating in clinical experiences at local long-term care and acute medical facilities.

**FAST FACTS:** Median income range in this field is $43,170-$67,490 with employment opportunities expected to grow 16 percent in the next decade.
Health and Biosciences

PLTW Biomedical Sciences Program
Students can enter program in 9th, 10th or 11th grade.

The Project Lead the Way (PLTW) Biomedical Science Program uses project-based and problem-based learning to engage students. The curriculum teaches students to solve problems, participate as part of a team, lead teams, conduct research, understand real-world problems, analyze data, and learn outside the classroom. The program prepares students for further education and careers in biomedical sciences. Students have the opportunity to earn college credit from PLTW affiliate colleges.

Principles of the Biomedical Sciences ♦ T
816104 Level: 4 Credits: 1.0
SCED: 14961
Prerequisite: Acceptance into the program
This course focuses on the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. The course is designed to provide an overview of all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

Human Body Systems ♦ T
816204 Level: 4 Credits: 1.0
SCED: 14962
Prerequisite: Principles of the Biomedical Sciences
This course focuses on the processes, structures, and interactions of the human body systems. Important concepts in the course include: communication, transport of substances, locomotion, metabolic processes, defense, and protection. Students design experiments, investigate the structures and functions of body systems, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation.

*Medical Interventions ♦ T
816304 Level: 4 Credits: 1.0
SCED: 14963 *Concentrator
Prerequisite: Human Body Systems
This course investigates the variety of interventions involved in the prevention, diagnosis and treatment of disease. The course is a “How-To” manual for maintaining overall health and homeostasis in the body as students explore how to prevent and fight infection, how to screen and evaluate the code in human DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.

Biomedical Innovation ♦ T
816404 Level: 4 Credits: 1.0
SCED: 14964
Prerequisite: Medical Interventions
This Biomedical Innovation capstone course is dual enrolled with Salisbury University and is only offered to students enrolled in the Biomedical program at Worcester Technical High School. During the course, students will design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They will apply their knowledge and skills to answer questions or to solve problems related to the biomedical sciences. They may work with a mentor or advisor from a university, hospital, physician’s office, or industry as they complete their work. Students are expected to present the results of their work to an adult audience, which may include representatives from the local healthcare or business community. Students who successfully complete this course, as well as Principles of the Biomedical Sciences, Human Body Systems, and Medical Interventions, can earn eight credits from Salisbury University. Please see page 103 for more information.
The Fire Science program is offered in partnership with instructors from the Maryland Fire and Rescue Institute (MFRI) of the University of Maryland. Students’ progress through courses on fire prevention and control and emergency medical technology. The program includes classroom instruction as well as formal training at local fire companies. **Students are required to complete work-based learning and take the seven certification exams: EMT, EMR, Fire Fighter I, Firefighter II, Rescue Tech, Rescue Technician, and Haz-Mat Material Operations.** The following colleges offer credit: Anne Arundel, Cecil, College of Southern Maryland, Frederick, Prince George’s, and UMUC.

**EMT/Hazmat**

- **Course Code:** 821263
- **Level:** 3
- **Credits:** 2.0
- **SCED:** 15963

Prerequisite: Student must be a member in good standing of a volunteer fire company; must be 16 years of age

This course is designed to train students to become Basic Life Support providers. Major topics covered include legal aspects of emergency care, infection control, patient assessment, respiratory system, oxygen adjuncts and delivery, CPR, AED, bleeding control and management of soft tissue injuries, musculoskeletal injuries and management, spinal immobilization, pediatric and obstetric emergencies, crisis intervention, multiple casualty and triage management, ambulance operations, and EMS Systems. Each of the seven Maryland Institute of Emergency Medical Services Systems (MIEMSS) written module certification examinations must be passed with a minimum of 70%. The practical evaluation must be passed according to a checklist based on U.S. DOT requirements. A limited re-test option based on the testing policy is permitted in each module for the written and/or practical examination. The Hazardous material portion of the course is to provide students with the knowledge and skills to mitigate a hazardous materials leak. Upon successful completion of the course, students will be able to analyze a hazardous materials incident; plan a response; implement the response; evaluate the progress of the planned response; and terminate the incident (NFPA 472, Standard for Hazardous Materials Responder Professional Competencies).

**Firefighter I/Rescue Technician**

- **Course Code:** 821163
- **Level:** 3
- **Credits:** 2.0
- **SCED:** 15964

Prerequisite: Student must be a member in good standing of a volunteer fire company; must be 16 years of age

Students study the Firefighter I curriculum as developed by the Maryland Fire & Rescue Institute and the University of Maryland. Students will gain knowledge and skills to safely and effectively perform basic firefighting operations as part of a team. Upon successful completion of this course, students will be able to understand and apply the principles of fire behavior; building construction; water distribution systems; fixed fire protection systems; ventilation; hose streams; fire prevention; and inspections, ladders, and rescue techniques. (NFPA, 1001 Standard for Fire Fighter Professional Qualifications) The Rescue Technician portion of this course will prepare the student to approach each rescue incident with attention focused on the importance of proper operational planning and all related components for effective safe site operation, and victim management and equipment maintenance and inspection, with particular emphasis on vehicular and machinery rescue. Minimum passing score for accreditation from MFRI is 70% in addition to a 100% on skill set evaluations.

**FAST FACTS:** Median income range for professional firefighters and EMTs/Paramedics is $31,980-$46,870 with employment opportunities expected to grow between 5 and 24 percent in the next decade.
In the Homeland Security and Emergency Preparedness (HS/EP) Program, students complete a foundation-level course with a focus on protecting against threats to public safety through effective communication, preparedness, detection, prevention, response and recovery. Students complete additional courses in Homeland Security Science Research Methods and Applications.

**Foundations of Homeland Security and Emergency Preparedness A**
851103  Level: 3  Credit: 1.0  SCED: 15911

This course will introduce students to Homeland Security and Emergency Preparedness guidelines, concepts, and action plans. Emphasis will be placed on unique aspects of public safety and public health. Various methodologies for intelligence gathering and dissemination will be explored and will introduce students to various local, state, and federal assets.

**Homeland Security Science**
851113  Level: 3  Credit: 1.0  SCED: 15912

Prerequisite: Foundations of Homeland Security and Emergency Preparedness

This is course is taught for 9 weeks in a 130 minute block.

This course will introduce students to Homeland Security and Emergency Preparedness 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 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.

**Homeland Security Science Research Methods and Applications**
851123  Level: 3  Credit: 1.0  SCED: 15913

*Concentrator*  
Prerequisite: Homeland Security Science

This is course is taught for 9 weeks in a 130 minute block.

* - Weighted Class  DE - Dual Enrollment Credit  
A – Articulated Credit  T – Transcripted Credit

**Internship/Capstone Experience**  
851133  Level: 3  Credit: 1.0  SCED: 15986

Prerequisite: Homeland Security Science Research Methods and Applications

The Internship/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. Students will have the option of completing an industry mentored project or internship. 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.

**FAST FACTS:** Median income range in this field is $67,330-$90,120 with employment opportunities expected to grow between 6-18 percent in the next decade.
The Criminal Justice and Law Program provides students with opportunities to develop the knowledge and skills required for entry-level employment in a variety of careers in the criminal justice field.

**Introduction to Criminal Justice ♠ A**
813103   Level: 3   Credits: 1.0
SCED: 15941

This course focuses on the history and structure of American law enforcement, as well as how crime is defined and measured. Emphasis is on identifying causes of crime, procedural rights, and the duties and styles of police officers in combating crime.

**The Administration of Justice ♠ A**
813113   Level: 3   Credits: 1.0
SCED: 15942
Prerequisite: Intro to Criminal Justice

This course focuses on the American court structure and examines institutional corrections and community corrections including institutionalization, parole, and probation. The juvenile justice system is covered as well as the future of corrections in relation to developments in procedure and technology.

**Forensic Science I ♠ A**
813143   Level: 3   Credits: 1.0
SCED: 15944
Prerequisite: The Administration of Justice
*Concentrator

This course is taught for 9 weeks in a 130 minute block.

This course focuses on observation skills and how to apply those skills to crime scene investigation and evidence examination. The protocols of crime scene investigation are emphasized. Students explore the identification of trace evidence such as hair, fiber, pollen, and latent fingerprints. The science of DNA profiling and blood spatter interpretation is also studied.

**Forensic Science II ♠ A**
813153   Level: 3   Credits: 1.0
SCED: 15977
Prerequisite: Forensic Science I

This course is taught for 9 weeks in a 130 minute block.

During this course, students are introduced to the larger components of physical evidence including drug identification, handwriting analysis, soil examination, glass evidence, tool marks, and ballistics. Students learn to make casts and impressions of such evidence as tire marks and footprints. Death investigations are explored and the science of forensic anthropology.

**FAST FACTS:**
- The median annual income range in this field is $49,360-$60,270.
- Employment in this field is projected to grow between 4-27 percent in the next decade.
Human Resource Services

Geographic Information System (GIS) Program
Students can enter program in 9th, 10th or 11th grade.

The Geographic Information Systems (GIS) Program integrates government, academia, and private sector training/educational initiatives to help students understand how the United States and its interests worldwide are protected against threats to public safety, both natural and manmade, through effective communication, preparedness, detection, prevention, response and recovery. **Students have the opportunity to earn the Geographic Information System (GIS) certification.**

**Foundations of Homeland Security and Emergency Preparedness ♦**

851103 Level: 3 Credits: 1.0
SCED: 15911

This course will introduce students to Homeland Security and Emergency Preparedness guidelines, concepts, and action plans. 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.

**Introduction to Geographic Information Systems and Remote Sensing ♦**

852103 Level: 3 Credits: 1.0
SCED: 15912
Prerequisite: Foundations of Homeland Security and Emergency Preparedness

*This course is taught for 9 weeks in a 130 minute block.*

During this course, students will use a locally customized Geographic Information System (GIS) to learn about their local community. The skills based training portion of this course will help the student learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students will follow a course of hands-on instruction to learn skills ranging from introductory digital mapping to image analysis.

**Advanced Skill-Based Training for Geographic Information Systems and Remote Sensing ♦**

852113 Level: 3 Credits: 1.0
SCED: 15913 *Concentrator
Prerequisite: Introduction to Geographic Information Systems and Remote Sensing

*This course is taught for 9 weeks in a 130 minute block.*

This course will continue to help students learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Students will follow a course of hands-on instruction to learn skills ranging from introductory digital mapping to image analysis. Students will learn and apply Spatial Analyst and 3D Analyst.

**GIS Internship / Capstone Experience ♦**

852203 Level: 3 Credits: 1.0
852213 Level: 3 Credits: 2.0
SCED: 15986
Prerequisite: Advanced Skill-Based Training for Geographic Information Systems and Remote Sensing

The Internship/Capstone Experience is the culminating course for the GIS for Homeland Security Program. Students will have the option of completing an industry-mentored project or internship. 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.
The Early Childhood Education Program is designed to prepare students for continuing education in preparation to be public school primary teachers and/or child care providers in family and group care settings. Students completing the capstone Early Childhood Learning Experience course may qualify for the Level 2 Maryland Child Care Credential. **Students have the opportunity to earn the Child Development Associate certification.**

**Introduction to Early Childhood Education ♦ A**
815103  Level: 3  Credits: 1.0  SCED: 19971

This course introduces students to the major roles and responsibilities of an early childhood educator. Students will study major theories, developmentally appropriate curricula, equipment, schedules, teaching styles, and current research in education.

**Child Development ♦ A**
815213  Level: 3  Credits: 1.0  SCED: 19961
Prerequisites: Introduction to Early Childhood Education

This course defines the major concepts and sequence in the development of a child between conception and adolescence. Students will gain understanding of the importance of prenatal development and its effects on early childhood development. Students will study child development in stages of physical, motor, language, psychosocial, moral, and more. Students will develop and apply search strategies to access information from educational databases and other electronic sources to identify and compare theories that influenced the study of child development.

**Preschool Child Care ♦ A**
815223  Level: 3  Credits: 1.0  SCED: 19963  Prerequisites: Child Development

This course helps students develop a greater understanding of planning guidelines within a preschool curriculum. Students will develop and maintain an appropriate physical environment for activities for young children by implementing room arrangement practices in relation to safety and use of learning centers. This course includes developing and implementing appropriate curriculum including activities and opportunities to promote the physical development (gross and fine motor skills), intellectual, and social-emotional growth of young children.

**Infant and Toddler Care ♦ A**
815313  Level: 3  Credits: 1.0  SCED: 19972  Prerequisites: Preschool Childcare

During this course, students receive an introduction to providing a healthy and safe environment for infants and toddlers in a care program. Daily care routines and group activities are developed and practiced. Students will be able to explain the stages of development in children from birth to 2 years. Students will practice effective communication with parents. Developmentally appropriate practice in early childhood care is stressed.

**Early Childhood Learning Experience (Optional) ♦**
815323  Level: 3  Credits: 2.0  SCED: 19973  Prerequisite: Completion of the Early Childhood Education Program

This capstone experience places students in supervised training experiences in an agency or institution relevant to early childhood education. Students will earn the Maryland Child Care Credential by completing the 90-hour requirement for Core Knowledge Equivalents in child development, curriculum, health, safety and nutrition, special needs, professionalism, and community.
The Teacher Academy of Maryland aligns with the Interstate Teacher Assessment and Support Consortium (InTASC) and the Maryland Essential Dimension of Teaching (EDoTs). The program prepares students for further education and careers in the education profession focusing on teaching as a profession, human growth and development, learning theory, and curriculum and instruction. **Students have the opportunity to earn articulated and/or transcripted credits with six Maryland post-secondary teacher education programs.** This program is based on the outcomes of the Maryland Associate of Arts in Teaching (A.A.T.) degree, which aligns with the National Council for the Accreditation for Teacher Education (NCATE) standards. **Students have the opportunity to pass the ParaPro exam and the Praxis CORE.**

**Human Growth and Development through Adolescence** ♦
802223  Level: 3  Credits: 1.0  SCED: 19961

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 will 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 will begin to develop the components of a working portfolio to be assembled upon completion of the internship.

**Teaching as a Profession** ♦
802233  Level: 3  Credits: 1.0  SCED: 19962

This course focuses on the profession of teaching—its history, purposes, issues, ethics, laws and regulations, roles, and qualifications. Emphasis is placed on identifying the current, historical, philosophical and social perspectives of American education, including trends and issues. Students will explore major approaches to human learning. Students will participate in guided observations and field experiences in multiple settings to help them assess their personal interest in pursuing careers in this field and to identify effective learning environments.

**Education Academy Internship** ♦
802253  Level: 3  Credits: 1.0  SCED: 19969

Prerequisite: Foundations of Curriculum and Instruction

The internship is the culminating course of the Education Academy Program. Students will have an opportunity to extend and apply their knowledge about teaching in a classroom setting under a mentor teacher. The students will complete their working portfolio and present it for critique.

Students will continue to develop the components of a working portfolio to be assembled upon completion of the internship.

**Foundations of Curriculum and Instruction** ♦
802243  Level: 3  Credits: 1.0  SCED: 19963  *Concentrator

Prerequisites: Human Growth and Development through Adolescence and Teaching as a Profession

This course explores curriculum delivery models in response to the developmental needs of all children. Emphasis is placed on the development of varied instructional materials and activities to promote learning, classroom management strategies, and a supportive classroom environment. Students will explore basic theories of motivation that increase learning. Students will participate in guided observations and field experiences to critique classroom lessons in preparation for developing and implementing their own. Students will continue to develop the components of a working portfolio to be assembled upon completion of the internship.

**- Weighted Class  DE - Dual Enrollment Credit**

**A - Articulated Credit  T - Transcripted Credit**
At a time when computer science affects how we work and live, PLTW Computer Science empowers students to become creators, instead of merely consumers, of the technology all around them. Whether building apps or exploring cybersecurity, PLTW Computer Science engages students in interdisciplinary activities that not only build knowledge and skills in computer science, but also empower students to develop essential skills such as problem solving, critical and creative thinking, communication, collaboration, and perseverance. The program’s courses empower students with in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they choose. PLTW Computer Science courses are part of the AP + PLTW computer science pathway. Students have the opportunity to pass the AP Computer Science Principles and AP Computer Science A Exams.

PLTW Computer Science Essentials ♦  
452133  Level: 3  Credits: 1.0  
SCED: 10971  
This course introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language.

*PLTW Advanced Placement Computer Science Principles ♦  
452334  Level: 4  Credits: 1.0  
SCED: 10972  *Concentrator  
Prerequisite: Satisfactory completion of Computer Science Essentials and Cybersecurity  
In this course, using Python® as a primary tool, students explore and become inspired by career paths that utilize computing, discover tools that foster creativity and collaboration, and use what they’ve learned to tackle challenges like app development and simulation. This course is endorsed by the College Board, giving students the opportunity to take the AP Computer Science Principles exam for college credit.

PLTW Advanced Placement Computer Science A ♦  
452344  Level: 4  Credits: 1.0  
SCED: 10973  
Prerequisite: Satisfactory completion of Computer Science Essentials and Cybersecurity, and AP Computer Science Principles  
In this course, students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases, as well as creating a game for their friends or an app to serve a real need in the their community. This course is endorsed by the College Board, giving students the opportunity to take the AP Computer Science A exam for college credit.

PLTW Cybersecurity ♦  
452233  Level: 3  Credits: 1.0  
SCED: 10914  
Prerequisite: Satisfactory completion of Computer Science Essentials  
This course introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.
PLTW Pre-Engineering Program
Students can enter program in 9th, 10th or 11th grade.

*Project Lead the Way (PLTW)* incorporates the national standards of the National Council of Teachers of Mathematics, the National Science Standards and the International Technology Education Association. The program prepares students for further education and careers in engineering and engineering technology. **Students have the opportunity to earn college credits through SU, UMES, Wor-Wic and The Rochester Institute of Technology.**

**Introduction to Engineering Design ♦ A T**
814103          Level: 3          Credits: 1.0
SCED: 21922
Prerequisite: Acceptance into the program
Co-requisite: Geometry
This foundation course emphasizes the development of design. Students will use computers to produce, analyze and evaluate models of project solutions. They will 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 study engineering, design, sketching and visualization concepts, modeling and model analysis verification, marketing, and portfolio production. This course satisfies the Maryland high school graduation requirement in Technology Education.

**Principles of Engineering ♦ T**
814114          Level: 4          Credits: 1.0
SCED: 21921
Prerequisite: Introduction to Engineering Design
This foundation course provides an overview of engineering and technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experience, students address the emerging social and political consequences of technological change. Students will be provided an overview of the perspective of engineering, design process, communication and documentation, engineering systems, statics, material and material testing, thermodynamics, engineering for quality and reliability, and dynamics.

**Digital Electronics ♦ A T**
808134          Level: 4          Credits: 1.0
SCED: 21923  *Concentrator*
Prerequisite: Principles of Engineering
This foundation course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuitry to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students will cover fundamentals, number systems, gates, Boolean algebra, combinational logic circuit design, adding, flip-flops, shift registers and counters, families and specifications, and microprocessors.

**Digital Electronics (DE) ♦ ▼**
808334          Level: 4
Credits 1.0 HS Credit / 4 Salisbury University Credits
SCED: 21923
Prerequisite: Principles of Engineering
This Digital Electronics is a dual enrolled course with Salisbury University and is only offered to students enrolled in the Pre-Engineering program at Worcester Technical High School. The course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students use industry-standard...
computer software in testing and analyzing digital circuitry. They design circuitry to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students will cover fundamentals, number systems, gates, Boolean algebra, combinational logic circuit design, adding, flip-flops, shift registers and counters, families and specifications, and microprocessors. Students can earn four Salisbury University college credits by successfully passing this course.

*Students may choose either Aerospace Engin., CIM, Civil Engin. & Arch., or Comp. Science Software for Engin. to complete the fourth course in the Pre-Engineering course sequence:

**Aerospace Engineering** ♦ T
814314 Level: 4 Credits: 1.0
SCED: 21926
Prerequisite: Principles of Engineering
Aerospace Engineering explores the evolution of flight, navigation and control, flight fundamentals, aerospace materials, propulsion, space travel, and orbital mechanics. In addition, this pathway course presents alternative application for aerospace engineering concepts. Students analyze, design, and build aerospace systems. They apply knowledge gained throughout the course in a final presentation about the future of the industry and their professional goals. This course is designed for 11th grade students.

**Civil Engineering and Architecture** ♦ A T
814204 Level: 4 Credits: 1.0
SCED: 21926
Prerequisite: Principles of Engineering
This pathway course provides an overview of the fields of civil engineering and architecture while emphasizing the interrelationship and dependence of both fields on one another. Students will study the roles of civil engineers and architects. Students will solve design problems, plan projects, explain concepts of site planning, explore architecture, study structural engineering, and produce project documentation and presentations.

*Engineering Design and Development ♦
814214 Level: 4 Credits: 1.0
SCED: 21007
*Engineering Design and Development DE ♦ T
814404 Level: 4 Credits: 1.0
SCED: 21925
Prerequisite: Digital Electronics

*All students must take as their 5th & final course.
This Engineering Design and Development capstone course is dual enrolled with Salisbury University and is only offered to students enrolled in the Pre-Engineering program at Worcester Technical High School. The 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. An engineer from the school’s partnership team mentors each student team. Students keep journals of notes, sketches, mathematical calculations and scientific research. Student teams make progress reports 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. 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 student with the independent study skills they will need in postsecondary education and careers in engineering and engineering technology. Students who successfully complete this course, as well as Introduction to Engineering Design and Principles of Engineering, can earn three credits from Salisbury University. Please see page 103 for more information.
The Automotive Technician Program provides students with the opportunity to prepare for careers in the automotive industry. Students learn the operation, diagnosis and repair of the systems and components of modern automobiles. This program is affiliated with the National Automotive Technicians Education Foundation (NATEF). Students are encouraged to begin purchasing tools for a basic toolbox. **Students have the opportunity to earn five certifications: Safety, Suspension and Steering, Brakes, Electrical Systems, and Maintenance and Light Repair.**

### Automotive Technician Training I ♦
803203  
Level: 3  
Credits: 1.0  
SCED: 20921

This is the first course in the automotive technology sequence. Electricity is a large part of every automotive system, therefore electricity must be mastered before students can advance through the program. Topics of study include: fundamentals of electricity, ohms law, wire repair, basic electrical components, and using test equipment.

### Automotive Technician Training II ♦
803103  
Level: 3  
Credits: 1.0  
SCED: 20922  
Prerequisite: Auto Tech I

This course takes the skills information learned in Auto I to the application level. Students will learn how to diagnose and repair the starting, charging and body electrical systems.

### Automotive Technician Training III ♦ A
803113  
Level: 3  
Credits: 2.0  
SCED: 20923  
*Concentrator*  
Prerequisite: Auto Tech II

This course includes training procedures and diagnostics of all undercar systems. Braking system diagnostics of anti-lock brakes and traction and stability controls will be taught. Students will learn all aspects of steering and suspension repair, including advanced topics, such as computerized wheel alignment and tire pressure monitoring systems.

### Automotive Technician Training IV ♦ A
803123  
Level: 3  
Credits: 2.0  
SCED: 20925  
Prerequisite: Auto Tech III

In the final course, students will be given instruction in how to do maintenance and light repairs to the engine, transmission and HVAC systems. This course allows students to gain experience through customer service; emphasis is placed on work readiness skills. Work-based learning (apprenticeships, internships, and paid experiences) is available for qualified students.

♦ - Weighted Class  
DE - Dual Enrollment Credit  
A – Articulated Credit  
T – Transcribed Credit

Transportation Technologies

Automotive Technician Program  
Students can enter program in 10th or 11th, grade.
Career Research and Development (CRD)

Career Research and Development (CRD) is a CTE program that prepares students with the academic, technical and workplace skills necessary to seek further education and employment in a career field of their interest upon graduating high school. A student could be recommended to enroll in CRD through an application process.

**Career Research and Development**

903113  Level: 3  Credits: 1.0  
SCED: 22961

The overall goals in this course are to teach students the process of self-awareness, career awareness, career exploration, and setting academic and career-related goals. Students taking this course are given a variety of career interest assessments, research careers, and explore educational program choices. Students will demonstrate an understanding of how accurate, current and unbiased career information is necessary for successful career planning and management.

**Career Development, Preparation and Transition**

903123  Level: 3  Credits: 1.0  
SCED: 22962

Students in Course II will learn how to effectively plan for their future incorporating employment, education and training goals, and building financial literacy skills.

*Work-Based Learning (WBL) Experience*

903133  Level: 3  Credits: 2.0  
SCED: 22963  *Concentrator

The work-based learning experience takes place at the work-site, includes a minimum of 270 hours, and may be paid or unpaid. This experience is directed by the WBL agreement and plan developed by the student, WBL coordinator, and employer. The WBL plan identifies the appropriate competencies, duties, and tasks in academic, technical, and workplace readiness areas that apply directly to students.

Career & Technology Work Study

**Work Study**

822143  Level: 3  Credits: 1.0  
820143  Level: 3  Credits: 2.0  
SCED: 22963

Prerequisite: CTE Program completion and instructor recommendation.

Students are supervised in a paid or unpaid work-based learning experience in local industry related to their Career and Technology program concentration. This is a capstone experience. Students are required to have completed all related program requirements.

Employers evaluate student achievement and performance. This course may be repeated for credit.
AP/Dual Enrollment Courses in Partnership with Salisbury University

The following dual enrollment courses are offered at Worcester Technical High School. The PLTW offerings are available to students enrolled in the Project Lead the Way Pre-Engineering and Biomedical Science programs. Students who choose to enroll are eligible to transcript 4-year college credit (meaning they may take their transcript to the post-secondary institution of their choice) for a fee through Salisbury University and/or take the Advanced Placement test through the College Board, where available. Full descriptions of the PLTW courses can be found in the Pre-Engineering Program and Biomedical Sciences Program sections of this catalog; full descriptions of the AP & DE courses can be found under the Science section. Please pay special attention to the prerequisite(s) for each course. Students who receive free/reduced meals are advised to speak with their school counselor to discuss the reduction of tuition/testing fees.

<table>
<thead>
<tr>
<th>WCPS Course</th>
<th>SU Dual Enrollment Credit Earned</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLTW Pre-Engineering Sequence of 3 Courses: Introduction to Engineering Design, Principles of Engineering, and Engineering Design &amp; Development</td>
<td>ENGR 100</td>
<td>3</td>
</tr>
<tr>
<td>PLTW Pre-Engineering: Digital Electronics</td>
<td>COSC 250</td>
<td>4</td>
</tr>
<tr>
<td>PLTW Biomedical Sequence of 4 Courses: Principles of Biomedical Science, Human Body Systems, Medical Interventions, and Biomedical Innovations</td>
<td>BIOL 205, BIOL 214</td>
<td>8</td>
</tr>
<tr>
<td>AP Physics C</td>
<td>PHYS 221</td>
<td>4</td>
</tr>
<tr>
<td>AP Environmental Science</td>
<td>GEOG 150</td>
<td>4</td>
</tr>
<tr>
<td>SU General Chemistry</td>
<td>CHEM 121</td>
<td>4</td>
</tr>
<tr>
<td>SU Biology Concepts &amp; Methods</td>
<td>BIOL 210</td>
<td>4</td>
</tr>
</tbody>
</table>
## Appendix A: WCPS Field Courses

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Description</th>
<th>Prerequisites</th>
<th>Participation Criteria</th>
<th>Level</th>
<th>Credits</th>
<th>Participating School(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Experience</td>
<td>Page 65</td>
<td>Employment and Career Preparation Course or Career Internship Summer Program</td>
<td>Junior or senior status and student secured employment placement.</td>
<td>2</td>
<td>1-4</td>
<td>PHS SHHS SDHS</td>
</tr>
<tr>
<td>Internship</td>
<td>Page 65</td>
<td>Completion of 12 or more Level III courses and honor roll status</td>
<td>Senior status and approval of principal and two teacher recommendations and student secured internship placement/sponsor. Limited to 20 honor roll students.</td>
<td>3</td>
<td>2-4</td>
<td>PHS SHHS SDHS</td>
</tr>
<tr>
<td>Tutorial Internship</td>
<td>Page 65</td>
<td>Strong academic background and excellent math, written, and oral skills</td>
<td>Junior or senior status and successful application and interview process</td>
<td>3</td>
<td>1</td>
<td>PHS SHHS SDHS</td>
</tr>
<tr>
<td>Accounting and Finance Internship</td>
<td>Page 73</td>
<td>In place of capstone course project</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>1</td>
<td>May not be offered in all home high schools</td>
</tr>
<tr>
<td>Business Management Internship</td>
<td>Page 72</td>
<td>In place of capstone course project</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>1</td>
<td>May not be offered in all home high schools</td>
</tr>
<tr>
<td>Cosmetology Clinical Experience</td>
<td>Page 86</td>
<td>Senior Status in Cosmetology Program</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>2</td>
<td>WTHS</td>
</tr>
<tr>
<td>Early Childhood Learning Experience</td>
<td>Page 96</td>
<td>Completion of Early Childhood Education Program</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>2</td>
<td>WTHS</td>
</tr>
<tr>
<td>Hospitality and Tourism Work-Based Learning Experience</td>
<td>Page 85</td>
<td>Preceding three courses in Hospitality and Tourism Management Program</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>2</td>
<td>WTHS</td>
</tr>
<tr>
<td>Renewable Energies/Electrical Field Experience or Civic Engagement Activity</td>
<td>Page 78-79</td>
<td>Completion of Renewable Energies/Electrical Program</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>1</td>
<td>WTHS</td>
</tr>
<tr>
<td>Work Study</td>
<td>Page 102</td>
<td>Completion of a Career and Technology program</td>
<td>Instructor recommendation and student secured employment placement</td>
<td>3</td>
<td>1-4</td>
<td>WTHS</td>
</tr>
<tr>
<td>Community Work Experience I</td>
<td>Page 66</td>
<td>Non-diploma track status</td>
<td>IEP transition plan recommendation</td>
<td>1</td>
<td>0</td>
<td>WTHS</td>
</tr>
<tr>
<td>Community Work Experience II</td>
<td>Page 66</td>
<td>Non-diploma track status</td>
<td>IEP transition plan recommendation</td>
<td>1</td>
<td>0</td>
<td>WTHS</td>
</tr>
</tbody>
</table>
Addendum

**Attachment 2A: Local School System’s Options for Implementing the CCR & CC Art of 2013**

<table>
<thead>
<tr>
<th><strong>11th Grade Assessment</strong></th>
<th><strong>Senior Coursework</strong></th>
<th><strong>Re-Assessment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Language Arts (ELA)</strong></td>
<td>PARCC OR SAT OR ACT OR AP (Wor-Wic) Dual Enrollment by Local Agreement</td>
<td>If a student is not college and/or career determined at the end of 11th grade, he/she will:</td>
</tr>
<tr>
<td>11th Grade Assessment</td>
<td></td>
<td>Complete an ELA transition course or an additional ELA “instructional opportunity” (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college. These articulated college courses include, but are not limited to, Developmental English, courses approved by the community college as sufficient preparation for college, or courses that are taught by community college faculty.</td>
</tr>
<tr>
<td>English 11 score of Level 4 or 5</td>
<td>Score of 480 or greater Evidence-based Reading &amp; Writing (EBRW) Section</td>
<td>*See page 16 for eligibility</td>
</tr>
<tr>
<td>English 10 score of Level 4 or 5 satisfies the CCR determination only for 11th graders enrolled in English 11 during the 2015-2016 &amp; 2016-2017 school years (pending continued research)</td>
<td>Score of 21 or greater Composite/ Average of English Test &amp; Reading Test scores</td>
<td></td>
</tr>
<tr>
<td>English Language &amp; Composition or English Literature Composition</td>
<td>Reading 79+ and Sentence Skills 90+ <em>(Subject to change in 2019-20)</em></td>
<td></td>
</tr>
<tr>
<td>Exam Score of 3, 4, or 5</td>
<td>Admission to and enrollment in a Maryland IHE’s appropriate ELA college credit bearing course. Existing local agreements between LEAs and community colleges on CCR are accepted. *See page 16 for eligibility</td>
<td></td>
</tr>
<tr>
<td><strong>MATH</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score of 530 or greater Mathematics Section</td>
<td></td>
<td>Summative Course Assessment (externally validated by local community college) OR PARCC 11 OR SAT/ACT OR Accuplacer OR AP Test</td>
</tr>
<tr>
<td>Score of 21 or greater on Mathematics Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus AB Calculus BC Statistics Exam Score of 3, 4, or 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Algebra test score of 70+ and College Level Math test score of 20+ <em>(Subject to change in 2019-20)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Admission to and enrollment in a Maryland IHE’s appropriate math college credit bearing course. Existing local agreements between LEAs and community colleges on CCR are accepted. *See page 16 for eligibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete a math transition course or an additional math “instructional opportunity” (online, hybrid, module, etc.) in preparation for re-assessment OR Enroll in a transition course articulated with a community college</td>
<td></td>
</tr>
<tr>
<td>Algebra II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score of Level 4 or 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[For 11th graders enrolled in Geometry, PARCC Geometry may also be used to meet the SB740 assessment requirement.]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Meet CCR Standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*If a student is determined “college ready” in mathematics prior to 11th grade, all CCR requirements have been met for mathematics. However, students entering the 9th grade class of 2014-2015 school year shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career/Tech Programs (CTE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>An appropriate transition course or other instructional opportunity consistent with the completion of a State Approved Career and Technology Education Program of Study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical Skill Assessment recognized by MSDE leading to a license or an industry certification</td>
<td></td>
</tr>
</tbody>
</table>

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### Maryland English Language Arts (ELA) Graduation and College and Career Readiness Requirements

**Graduating Class of 2020 (Students entering 9th Grade during the 2016/2017 School Year)**

<table>
<thead>
<tr>
<th>School Year</th>
<th>Grade</th>
<th>ELA Graduation Requirements for Public High Schools in Maryland</th>
<th>Additional ELA Requirements put into law by the College and Career Readiness and College Completion Act of 2013 (CCR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/2017</td>
<td>9th</td>
<td>Students must earn 4 credits in English Language Arts.</td>
<td>Students not designated CCR by the end of the 11th grade must participate in one of the following:</td>
</tr>
<tr>
<td>2017/2018</td>
<td>10th</td>
<td>Students must achieve a score of 725 on the Maryland High</td>
<td>• Next ELA course in the sequence with support by adding additional time and additional content</td>
</tr>
<tr>
<td>2018/2019</td>
<td>11th</td>
<td>School Assessment (MHSA) English 10 assessment.</td>
<td>addressed, or</td>
</tr>
<tr>
<td>2019/2020</td>
<td>12th</td>
<td>If the MSHA English 10 graduation requirement is not met after two attempts, the student may submit an English Bridge Project.</td>
<td>• ELA transition course, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Transition course articulated with a college, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Other ELA instructional opportunity, such as:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• ELA module</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Online ELA course</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Hybrid ELA course</td>
</tr>
</tbody>
</table>

**CCR Assessment Options**

- English 11
  - Score of Level 4 or higher
- SAT (administered 2017 – 2018 or after)
  - Score of 480 or higher on Evidence-based Reading and Writing (EBRW) Section
- SAT (administered 2016 - 2017)
  - Score of 500 or higher on Evidence-based Reading and Writing (EBRW) Section
- ACT
  - Score of 21 or higher (Average of English and Reading scores)
- AP Lit & Comp or AP Lang & Comp
  - Score of 3 or higher
  - Score of 4 or higher
- Accuplacer
  - Score of 79+ Reading, 6+ Writing, and 90+ Sentence Skills (students must meet minimum scores on all three) *(Subject to change in 2019-20)*
- Dual enrollment
  - Admission to and enrollment in a Maryland IHE’s appropriate ELA college credit-bearing course

**12th Grade Transition Course**

- Students who were not designated CCR by the end of the 11th grade must be reassessed by the end of the senior year. Reassessment options include all of the CCR Assessment Options listed in the column to the left.
- Additional senior year CCR reassessment options include:
  - Summative Assessment aligned to the ELA Transition Course articulated by a college, or
  - Career and Technology Education Program Technical Skill Assessment that qualifies students to earn college credit or leads to a license or an industry certification.
### Graduating Class of 2020 (Students entering 9th Grade during the 2016/2017 School Year)

<table>
<thead>
<tr>
<th>School Year</th>
<th>Grade</th>
<th>Mathematics Graduation Requirements for Public High Schools in Maryland</th>
<th>Additional Mathematics Requirements put into law by the College and Career Readiness and College Completion Act of 2013 (CCR)</th>
<th>12th Grade Transition Course</th>
</tr>
</thead>
</table>
| 2016/2017   | 9th   | Students must earn 3 credits in mathematics which must include a credit in:  
- Algebra  
- Geometry  
Maryland’s goal for all students is completion of Algebra II but completion of Algebra II is not a Maryland mathematics credit requirement.  
Enrollment in a mathematics course during 12th grade is required.  
Note the University System of Maryland (USM) Mathematics Admission Requirements related to the completion of Algebra II in the footnote below. | Students must be assessed by the end of the 11th grade to determine readiness for credit-bearing college level coursework, using one of the following:  
- MSHA Algebra II  
  - Score of 4 or higher  
- For 11th graders enrolled in Geometry, a score of Level 4 or higher on the Geometry assessment may satisfy the CCR determination.  
- SAT (administered 2017 - 2018)  
  - Score of 530 or higher on the Mathematics portion  
- SAT (administered 2016 - 2017)  
  - Score of 500 or higher on the Mathematics portion  
- ACT  
  - Score of 21 or higher on Mathematics portion  
- AP Calculus AB, AP Calculus BC, AP Statistics  
  - Score of 3, or higher  
- Accuplacer  
  - College Level Mathematics test Score of 45 or higher (Subject to change in 2019-20)  
- Dual enrollment  
  - Admission to and enrollment in a Maryland IHE’s appropriate mathematics college credit-bearing course  
Note: LEAs may use alternate CCR determination options, if an agreement exists between the LEA and a local community college that allows students to take college-level credit-bearing mathematics coursework using different metrics. | Students not designated CCR by the end of the 11th grade must participate in one of the following options:  
- Next mathematics course in the sequence with support, or  
- Transition course articulated with a college, or  
- Other mathematics instructional opportunity:  
  - Modules  
  - Online Mathematics course  
  - Hybrid Mathematics Course |
| 2017/2018   | 10th  | Students must achieve 725 on MSHA Algebra I assessment  
Note: Students who took the MSHA for Algebra I assessment during the 2014/2015 or 2015/2016 school year only needed to participate in the assessment to satisfy their Maryland Mathematics Assessment graduation requirement.  
If the MSHA for Algebra I graduation assessment requirement is not met after two attempts, the student may submit a successful Algebra I Bridge Project. | | |
| 2018/2019   | 11th  | | | |
| 2019/2020   | 12th  | | | |

### Footnotes

1. The Mathematics Admissions requirements for schools in the University System of Maryland exceed the Maryland Mathematics Graduation Requirements. (see details below) The University System of Maryland (USM) Board of Regents in December 2009 approved a new academic policy that requires incoming freshman undergraduates to have completed four years of high school math. The requirement applies to student applicants who entered ninth grade in Fall 2011 (Seniors during 2014-2015). The coursework must include Algebra I, Geometry, and Algebra II. Students who complete Algebra II before their senior year must also complete the fourth-year math requirement. They can do so by taking a course during their senior year that is intensive in algebra and expands on algebra foundations developed during Algebra II.

The University System of Maryland is comprised of: Bowie State University; Coppin State University; Frostburg State University; Salisbury University; Towson University; University of Maryland, Baltimore; University of Maryland, Baltimore County; University Center for Environmental Science; University of Maryland, College Park; University of Maryland, Eastern Shore; University of Maryland, University College; and University of Baltimore.

2. Unless otherwise determined, districts may use the Geometry assessment as a means to satisfy the CCR assessment requirement for 11th grade students taking Geometry. Please note that a score of 4 or higher on the Geometry assessment does not indicate readiness for college-level credit-bearing mathematics coursework.
## WOR-WIC COMMUNITY COLLEGE COURSES FOR DUAL ENROLLMENT STUDENTS

<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
<th>Course Description</th>
<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
</table>
| • ACT 101 Financial Management (3 credits) | This course offers a comprehensive study of basic accounting principles and procedures. Students record accounting transactions, prepare financial statements, apply internal controls, account for assets and liabilities, and utilize ratio analysis. **WCPS Prerequisites and Notes:**  
  • College & Career Ready in English  
  • Students are eligible if *Accounting* is not offered at their high school AND/OR if *Accounting* does not fit their schedule.  
  • Elective High School Credit will be awarded | • Accepted (3 credits): Bowie, Frostburg, Salisbury, Stevenson, Towson, UMB, UMBC, Univ. of MD, UMES, UMUC, UMB  
• Accepted as **Lower Level Elective** (3 credits): Coppin |
| • BMT 101 Introduction to Business (3 credits) | This course covers the role and function of the business enterprise within the U.S. economic framework. Students explore the internal and external environments that impact business organizations and the various forms of business ownership. Students study the responsibilities of functional groups that work together to achieve business success and evaluate real-life business situations. **WCPS Prerequisites and Notes:**  
  • College & Career Ready in English  
  • Students are eligible if *Business* is not offered at their high school AND/OR *Business* does not fit their schedule.  
  • Elective High School Credit will be awarded | • Accepted (3 credits): Bowie, Frostburg, Salisbury, Stevenson, Univ. of MD, UMES, UMUC  
• Accepted as **Lower Level Elective** (3 credits): Coppin, Towson, UMB, UMBC  
• NOTE: Transfers to SU as undergraduate elective. |
| • BMT 205 Business Law (3 credits) | This course presents the basic framework of commercial and administrative law. Students will explore law as it relates to contracts, agency and employment, business torts and crimes, the organization of business ownership, product safety and liability, warranties, antitrust regulations, and real and personal property. **WCPS Prerequisites and Notes:**  
  • Elective High School Credit will be awarded | • Accepted (3 credits): Bowie, Frostburg, Salisbury, Stevenson, Towson,  
• Accepted as **Lower Level Elective** (3 credits): Coppin, UMBC, UMUC, UMB |
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
<th>Course Description</th>
<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
</table>
| CMP 104 Introduction to Programming (4 credits) | This course introduces students to the basic principles of programming, object oriented concepts and terminology. Using an industry-appropriate and current programming language, students are introduced to the concepts of decision, repetition, objects, classes, inheritance and polymorphism with an easy-to-use and entertaining programming language. Laboratory fee: $15. **WCPS Prerequisites and Notes:** <ul><li>Students are eligible if AP Computer Science is not offered at their high school AND/OR AP Computer Science does not fit their schedule</li><li>Elective High School Credit will be awarded</li></ul> | • Accepted (2 credits min., 3 credits max.): Salisbury, Stevenson, Towson, UMB, UMBC, UMUC  
• **Accepted as Lower Level Elective (2 credits min., 3 credits max):** Coppin, Morgan |
| ENG 101: Fundamentals of English I (3 credits) | This course is designed to help students develop their college-level writing skills with an emphasis on the writing process. This course includes an introduction to research skills. Students write summary assignments and a series of essays in various modes, culminating in an argumentative research paper. Students must earn a grade of “C” or better in this course in order to enroll in English 151. **WCPS Prerequisites and Notes:** <ul><li>College and Career Ready in English</li><li>Students are eligible if Fundamentals of English I (DE) is not offered at their high school AND/OR if Fundamentals of English I (DE) does not fit their schedule</li><li>Elective High School Credit will be awarded</li></ul> | • Accepted as **Freshman Composition** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC  
• Accepted as **English Elective** (3 credits): University of Baltimore |
| ENG 151: Fundamentals of English II (3 credits) | This course continues to help students develop their college-level writing skills. Students are introduced to the study of literature (prose, poetry, fiction, and drama). Students integrate outside sources with their own ideas in written arguments. They also refine their research and documentation skills. **WCPS Prerequisites and Notes:** <ul><li>College and Career Ready in English</li><li>Completed Fundamentals of English I (DE) with a “C” or better</li><li>Elective High School Credit will be awarded</li></ul> | • Accepted as **English Literature** (3 credits): Frostburg, Stevenson, UMBC, Univ. of MD  
• Accepted as **Composition II** (3 credits): Coppin, Morgan, Univ. of Baltimore, UMES  
• **Accepted as English Elective (3 credits):** Bowie, Salisbury University, Towson, UMUC |
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
<th>Course Description</th>
<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
</table>
| • COM 101: Intro to Public Speaking (3 credits) | This course is an introduction to the theories of oral communication, focusing on pragmatic approaches to presentational styles and organizational skills. *WCPS Prerequisites and Notes:*  
  • Elective High School Credit will be awarded | • Accepted as **Speech/Communication** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore  
  • Accepted as **Elective** (3 credits): Towson |
| • EDU 155: Foundations of Education (3 credits) | This course, which covers the major developments in the history of American education, offers a comprehensive overview of the historical, philosophical, sociological, political and legal foundations of education. Emphasis is placed on the structure and organization of schools, roles of classroom teachers, influences on teaching and learning, diversity, and contemporary educational policy and issues. *WCPS Prerequisites and Notes:*  
  • Elective High School Credit will be awarded | • Accepted as **Education Foundations** course (3 credits): Bowie, Morgan, Salisbury, Stevenson, Towson UMES, UMUC.  
  • Accepted as **Elective**: Coppin, UMBC, Univ. of MD, Univ. of Baltimore |
| • BIO 101: Fundamentals of Biology (4 credits) | This introductory course is designed to acquaint non-science major students with the basic concepts of living organisms, including cell structure and function, metabolism, human and plant systems, genetics, evolution, adaptation and ecology. Laboratory fee: $30. *WCPS Prerequisites and Notes:*  
  • Students are eligible if *AP Biology* is not offered at their high school AND/OR if *AP Biology* does not fit their schedule  
  • Student must have met graduation requirements in Science  
  • Elective High School Credit will be awarded | • Accepted as **Biological Science** (4 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, Univ. of Baltimore, UMBC, Univ. of MD, UMES, UMUC |
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
<th>Course Description</th>
<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CHM 105: General Chemistry (4 credits)</td>
<td>This course examines the fundamental laws of chemistry and atomic structure, with an emphasis on chemical calculations and quantitative relationships. Laboratory fee: $30.</td>
<td>• Accepted as <strong>General Chemistry</strong> (4 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC</td>
</tr>
</tbody>
</table>
| | **WCPS Prerequisites and Notes:**  
  - College & Career Ready in Mathematics  
  - Students are eligible if AP Chemistry or General Chemistry I (DE) is not offered at high school AND/OR if AP Chemistry or General Chemistry I (DE) does not fit their schedule  
  - Student must have met graduation requirements in Science  
  - Elective High School Credit will be awarded | • Accepted as **Chemistry Elective** (4 credits): Univ. of Baltimore |
| | • Accepted as **Bio/Phys. Science Elective** (4 credits): UMUC | |
| • GEO 101: Earth and Space Science (4 credits) | This course offers an introduction to earth and space science for prospective elementary school teachers. The focus is on the physical characteristics of the earth and its place in the solar system. Laboratory fee: $30. | • Accepted as **Earth and Space/Physical Science** (4 credits): Bowie, Coppin, Morgan, Salisbury, Stevenson, UMES, UMUC |
| | **WCPS Prerequisites and Notes:**  
  - College & Career Ready in Mathematics  
  - Student must have met graduation requirements in Science  
  - Elective High School Credit will be awarded | • Accepted as **Lower Level Elective**: Frostburg, Towson, Univ. of MD, UMBC, Univ. of Baltimore |
| • PHY121: General Physics I (4 credits) | This is the first part of a two-semester algebra-based course designed to give students a general knowledge of kinematics, Newton’s laws of motion, energy and momentum and their conservation, rotational motion, wave motion, temperature and heat. Laboratory fee: $30. | • Accepted as **General Physics** (4 credits): Bowie, Coppin, Morgan, Stevenson, Salisbury University, UMBC. |
| | **WCPS Prerequisites and Notes:**  
  - College & Career Ready in Mathematics  
  - PreCalculus  
  - Student must have met graduation requirements in Science  
  - Students are eligible if AP Physics is not offered at high school AND/OR if AP Physics does not fit their schedule  
  - Elective High School Credit will be awarded | • Accepted as **Physics Elective** (4 credits): Towson, Univ. of Baltimore, UMES, UMUC |
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
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</tr>
</thead>
</table>
| • ENV 101: Environmental Science (4 credits) | This is a general education natural science course that integrates the physical and biological sciences in order for students to gain an understanding of humans in their environment. This course emphasizes critical thinking and an evaluation of current topics in environmental science in a local, national and global context, and prepares students to be able to discuss ecological concerns and rational solutions for today’s environmental problems. Laboratory fee: $30.  
WCPS Prerequisites and Notes:  
- College & Career Ready in Mathematics  
- Students are eligible if AP Environmental. Science or Environmental Science (DE) is not offered at their high school AND/OR if AP Environmental. Science or Environmental Science (DE) does not fit their schedule.  
- Student must have met graduation requirements in Science  
- Elective High School Credit will be awarded | • Accepted as Biological/Physical Science (4 credits): Bowie, Coppin, Morgan, UMBC, UMES, UMUC  
• Accepted as Elective (4 credits): Frostburg, Stevenson, Salisbury University, Towson, Univ. of Baltimore, Univ. of MD |
| • MTH 201: Calculus I (4 credits) | This course focuses on the rigorous treatment of topics traditionally covered in a first-semester calculus course including the theory of limits, differentiation, applications of the derivative, antidifferentiation, the indefinite and definite integral, integration by substitution and applications of the integral. Particular emphasis is placed on the epsilon-delta definition of limit, the mean value theorem and Newton’s method. Students gain experience constructing mathematical and simulation models.  
WCPS Prerequisites and Notes:  
- College and Career Ready in Mathematics  
- PreCalculus  
- Elective High School Credit will be awarded | • Accepted as Calculus I (4 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC  
• Accepted as Math Elective (4 credits): Univ. of Baltimore |
<table>
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</table>
| MTH 152: Elementary Statistics (3 credits) | This course introduces elementary statistics through a critical examination of its subjects and applications. Topics from descriptive statistics include data organization, expectation, and measures of variation. Also covered are random variables, probability laws, counting techniques, binomial and normal distributions, applications to the central limit theorem, confidence intervals and tests of statistical hypotheses involving the mean, median, and proportions. Topics from parametric and nonparametric statistics are introduced. **WCPS Prerequisites and Notes:**  
  - College and Career Ready in Mathematics  
  - Accuplacer score of 70+ Elementary Algebra and 20+ College Level Mathematics **AND** Accuplacer Reading Comprehension score between 79 – 120 *(Subject to change in 2019-20)*  
  - Students are eligible if Elementary Statistics *(DE)* is not offered at their high school AND/OR if Elementary Statistics *(DE)* does not fit their schedule  
  - Algebra II  
  - Elective High School Credit will be awarded | • Accepted as Statistics (3 credits):  
  - Bowie, Coppin, Frostburg, Stevenson, Salisbury University, Towson, Univ. of Baltimore, Univ. of MD, UMES  
  • Accepted as Math Elective (3 credits):  
  - Morgan, UMBC, UMUC |
| MTH 121: Precalculus 1 (3 credits) | This course covers the advanced algebra necessary to prepare students for the study of calculus. Topics involve solving, graphing and modeling with linear, quadratic, polynomial, rational, radical, exponential, logarithmic equations and inequalities. Basic conic section, matrices and linear programming topics are also included. **WCPS Prerequisites and Notes:**  
  - College and Career Ready in Mathematics  
    - Accuplacer score of 70+ in Elementary Algebra **AND** 45+ in College Level Mathematics *(Subject to change in 2019-20)*  
    - Students are eligible if Precalculus *(DE)* is not offered at their high school AND/OR if Precalculus *(DE)* does not fit their schedule  
  - Algebra II  
  - Elective High School Credit will be awarded | • New course - Transferability to be determined |
<table>
<thead>
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</tr>
</thead>
</table>
| **Math 122: Precalculus 2**  
(4 credits) | This course is a continuation of MTH 121. Trigonometry and advanced algebra are studies to prepare students for calculus. Trigonometric topics include angle measurement, definitions of the six trigonometric functions from the right triangle and unit circle perspectives, graphs, identities, inverses and equations. Algebraic topics include polar coordinates, parametric equations, and a review of functions and graphs. A problem solving approach utilizes applications and a graphing calculator throughout the course. **WCPS Prerequisites and Notes:**  
- College and Career Ready in Mathematics  
  - Accuplacer score of 70+ in Elementary Algebra **AND** 45+ in **College Level Mathematics** *(Subject to change in 2019-20)*  
  - Students are eligible if *Precalculus 2(DE)* is not offered at their high school **AND/OR** if *Precalculus 2(DE)* does not fit their schedule  
- Algebra II  
- Elective High School Credit will be awarded | **New course - Transferability to be determined** |
| **MTH 102: Applications in College Mathematics**  
(3 credits) | Students develop the ability to reason with quantitative information through the study of the principles of reasoning, numbering sense, probability and statistical reasoning, and mathematical modeling. This liberal arts course develops mathematical ideas that students encounter in college and career settings. **WCPS Prerequisites and Notes:**  
- College and Career Ready in Mathematics & English  
- Elective High School Credit will be awarded | **New course - Transferability to be determined** |
| **HIS 101: World Civilizations I**  
(3 credits) | This course covers major world civilizations from prehistoric times to the Renaissance, focusing on the political, social, economic and intellectual issues. **WCPS Prerequisites and Notes:**  
- Student must have met graduation requirements in Social Studies  
- Elective High School Credit will be awarded | **Accepted as World Civ I to 1500** *(3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Univ. of Baltimore, UMUC, UMES*  
**Accepted as Elective** *(3 credits): Towson, UMBC, Univ. of MD* |
<table>
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</tr>
</thead>
</table>
| **HIS 151: World Civilizations II** (3 credits) | This course covers major world civilizations from the Renaissance to modern times, focusing on the political, social, economic and intellectual issues. | • Accepted as **World Civ II Since 1500** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Univ. of Baltimore, UMUC, UMES  
• Accepted as **Elective** (3 credits): Towson, UMBC, Univ. of MD |
| **WCPS Prerequisites and Notes:** |  
• Student must have met graduation requirements in Social Studies  
• Elective High School Credit will be awarded |  

| **HIS 201: American History I** (3 credits) | This course covers the major economic, political, cultural and social factors that shaped the pattern of life in the U.S. from the 15th century through the Civil War and Reconstruction. | • Accepted as **U.S. History I** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
| **WCPS Prerequisites and Notes:** |  
• Student must have met graduation requirements in Social Studies  
• Elective High School Credit will be awarded |  

| **PSY 101: Introduction to Psychology** (3 credits) | The aim of this course is to provide students with a basic overview of psychology as a behavioral science and to help students develop a more comprehensive and accurate understanding of human behavior. Topics include psychology and development, cognitive processes, learning, intelligence, motivation and emotion, perception, personality, behavior and psychotherapy. | • Accepted as **General Psychology** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
| **WCPS Prerequisites and Notes:** |  
• Students are eligible if AP Psychology is not offered at their high school AND/OR if AP Psychology does not fit their schedule  
• Elective High School Credit will be awarded |  

| **POL 101: American Government** (3 credits) | This course provides a comprehensive examination of the American political system focusing on the Constitution, presidency, Congress, Supreme Court, political parties, political behavior and the distribution of power within American society. | • Accepted as **Government/Politics** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
| **WCPS Prerequisites and Notes:** |  
• Student must have met graduation requirements in Social Studies  
• Elective High School Credit will be awarded |  

115
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
<th>Course Description</th>
<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
</table>
| • ECO 151: Principles of Macroeconomics (3 credits) | This course provides an overview of basic economic concepts and institutions, the nature of economic activity and an analysis of the function of the economic system. Students examine how an economy allocates and uses resources, and they evaluate its economic condition. Students investigate different markets and the relationships among the markets. Students also study the interdependency of global economies.  
  
  **WCPS Prerequisites and Notes:**  
  • College & Career Ready in English  
  • Elective High School Credit will be awarded | • Accepted as **Macroeconomics** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
| • ECO 201: Principles of Microeconomics (3 credits) | This course provides an overview of basic economic concepts and institutions, the nature of economic activity and an analysis of the function of the economic system. Students apply an economic perspective to questions that firms and households must answer before making decisions. Students also study the interdependency of global economies.  
  
  **WCPS Prerequisites and Notes:**  
  • College & Career Ready in English  
  • Elective High School Credit will be awarded | • Accepted as **Microeconomics** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
| • PHL 101: Introduction to Philosophy (3 credits) | This course covers the history of philosophy and addresses the problems of religion, knowledge, reality, morality and politics as they arise in the thoughts of great Eastern and Western philosophers. Selected issues that underlie personal, social and cultural ferment in the 20th and 21st centuries are explored in the light of Eastern and Western classical philosophy.  
  
  **WCPS Prerequisites and Notes:**  
  • Elective High School Credit will be awarded | • Accepted as **Philosophy** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, UMUC  
  
  • Accepted as **Elective**: Univ. of Baltimore, Univ. of MD., UMES |
| • SOC 101: Introduction to Sociology (3 credits) | This course stresses the study of man in his social relationships. Topics include the patterns of culture, population, social institutions (familial, educational, religious, economic and political) and social change.  
  
  **WCPS Prerequisites and Notes:**  
  • Elective High School Credit will be awarded | • Accepted as **Sociology** (3 credits): Bowie, Coppin, Frostburg, Morgan, Stevenson, Salisbury University, Towson, UMBC, Univ. of MD, UMES, UMUC, Univ. of Baltimore |
<table>
<thead>
<tr>
<th>Wor-Wic Community College Courses</th>
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<th>Maryland Four-Year Colleges</th>
</tr>
</thead>
</table>
| **ART 101: Introduction to Art History (3 credits)** | This course presents the major themes, styles and subject matter of art and architecture from prehistory to the present, focusing on Western civilization. The art-works of each culture and historical period are examined in the context of the dominant thoughts, ideas and customs of the time. Materials fee: $40. **WCPS Prerequisites and Notes:**  
  - Students are eligible if *AP Art History* is not offered at their high school AND/OR if *AP Art History* does not fit their schedule  
  - Graduation Required Credit w/ Principal Permission | **Accepted as Art History (3 credits):** Salisbury, Towson, UMES, UMUC, Univ. of MD  
  **Accepted as Elective:** Bowie, Coppin, Frostburg, Morgan, Stevenson, Univ. of Baltimore, UMBC |
| **SPN 101: Fundamentals of Spanish I (3 credits)** | This course is an introduction to the Spanish language and Hispanic culture, with an emphasis on the acquisition of basic oral and written language skills through drills in grammar, vocabulary and communication. **WCPS Prerequisites and Notes:**  
  - College & Career Ready in English  
  - Students are eligible if *Spanish I* is not offered at high school AND/OR if *Spanish I* does not fit their schedule  
  - Elective High School Credit will be awarded | **Accepted as Spanish I (3 credits):** Bowie, Coppin, Frostburg, Morgan, Salisbury, Stevenson, Towson, Univ. of MD., UMES, UMUC.  
  **Accepted as Elective:** Univ. of Baltimore, UMBC |
| **FRN 101: Fundamentals of French I (3 credits)** | This course offers an introduction to the French language and francophone culture, with an emphasis on the acquisition of basic oral and written language skills through drills in grammar, vocabulary and communication. **WCPS Prerequisites and Notes:**  
  - College & Career Ready in English  
  - Students are eligible if *French I* is not offered at high school AND/OR if *French I* does not fit their schedule  
  - Elective High School Credit will be awarded | **Accepted as French I (3 credits):** Bowie, Coppin, Frostburg, Morgan, Salisbury, Stevenson, Towson, UMBC, UMUC.  
  **Accepted as Elective:** UMES, Univ. of Baltimore, Univ. of Maryland |
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101 Theories and Applications of</td>
<td>This course provides an introduction to Biological principles as they apply to our daily lives. The course is designed to partially meet general education requirements in the Natural Sciences. Consideration is given to organisms, their components and activities. Emphasis is on the development and use of knowledge, skills and attitudes expected to be of value in future decision-making as it relates to Biology, our present environmental conditions, and problems facing each of us today. This course is comprised of three hours lecture per week.</td>
<td>3</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 103 Biological Science Laboratory</td>
<td>This course emphasizes student involvement in investigations related to Biology. Emphasis is placed on the scientific method, biological molecules, cellular respiration and dissection. Laboratory is designed to partially meet general education requirements in Natural Sciences. Prerequisite: One year of high school biology. The laboratory fee is $25.</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 101 General Chemistry I</td>
<td>This course provides an introduction to inorganic chemistry and includes lectures on matter, dimensional analysis, elements (nomenclature, atomic structure, atomic formula and atomic orbital), compounds (nomenclature, molecular bonding, molecular structure, and molecular formulas), molecular conversions, solutions, acids, bases, and gases. This course is recommended for the non-science major, pre-health professionals (including pre-nursing students and nutrition majors), agriculture and home economics majors. Note: Students requiring a laboratory-based course must also register for CHEM 103. Prerequisite or Corequisite: MATH 101 or equivalent.</td>
<td>3</td>
</tr>
<tr>
<td>Recommended for students who are eligible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to take MATH 102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 103 General Chemistry Laboratory I</td>
<td>This two-hour per week laboratory includes experiments that illustrate the basic principles discussed in General Chemistry I. This course is recommended for the non-science major, pre-health professionals, (including pre-nursing students and nutrition majors), agriculture and home economics majors. Prerequisite or Corequisite: CHEM 101. Laboratory Fee: $25.00</td>
<td>1</td>
</tr>
<tr>
<td>CRJS 101 Introduction to Criminal Justice</td>
<td>This course presents an overview of the functioning of the criminal justice system and its relationship to society.</td>
<td>3</td>
</tr>
<tr>
<td>EDTE 111 Technology and Society</td>
<td>This course examines the nature of technology and society within the context of the designed world: its meaning, application, significance, the role it has played in our history and its importance in today’s technological society. Course content focuses on: the characteristics and scope of technology; the nature of technology within the context of the designed world; the design and development process; core concepts of technology; relationships and connections between technology and other fields; the cultural, social, economic, and political effects of technology; the effects of technology on the environment; and the role of society in the development and use of technology. Lecture three hours. Prerequisite: None</td>
<td>3</td>
</tr>
<tr>
<td>EDTE 131 Computer-Assisted Drawing and</td>
<td>The attributes of design, the engineering design process, and the basics of technical drawing are covered in this course. The design process is utilized to solve problems and design contemporary products. Basic technical drawing skills are developed, such as sketching, coordinate systems, the principles and theory of visualization, shape description, orthographic projection, basic descriptive geometry, axonometric drawings, and developments. Students use and apply computer-assisted drawing and design (CADD) software to produce basic technical drawings and three-dimensional designs. Engineering design and problem solving are used to research and develop renderings and solid three-dimensional models. Lecture two hours. Laboratory two hours. Prerequisite: None.</td>
<td>3</td>
</tr>
<tr>
<td>Design I (CAD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGE 100 First Year Orientations with</td>
<td>An overview of the engineering profession and college life; an orientation for incoming freshmen to stress, time management, ethics, and life skills; educational requirements, scholarship availability, career opportunities, and the importance of teamwork are explored. Prerequisite: Engineering Freshman Status. (Prerequisite would be waiver for Dual Enrollment students)</td>
<td>1</td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
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<tr>
<td>------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Basic Composition I</td>
<td>This course is designed to provide instruction in the basics of college level essay writing, with an emphasis on organization and development of ideas and the rhetorical modes of expository writing. The course will also review the fundamentals of grammar, punctuation, and conventional usage. Adequate opportunity for written analysis and oral discussion of selected examples of prose and creative writing are provided to encourage development of critical reading and thinking skills.</td>
</tr>
<tr>
<td>ENVS 101</td>
<td>Introduction to Environmental Sciences</td>
<td>This is an introductory lecture-based course in environmental science for the non-science majors. This course surveys the scope and extent of man’s environmental problems and also deals with socioeconomic and scientific aspects of pollution and control methods. The course emphasizes man’s disruption of the environment, population, growth, urbanization, public policy, and environmental trade-offs and is also designed to discuss the scientific processes that have been applied to the identification of environmental problems.</td>
</tr>
<tr>
<td>HIST 101</td>
<td>History of World Civilization I</td>
<td>The course examines human endeavors from the earliest civilizations to 1500. It examines major political and socio-economic achievements, stressing nonwestern and Greek, Roman, and Medieval contributions to world civilization.</td>
</tr>
<tr>
<td>MATH 102</td>
<td>Applications of College Mathematics</td>
<td>This course reviews sets and logic, functions and graphing, and solution of sets of linear equalities and inequalities. It includes an introduction to linear programming, combinatorial principles, and counting, with applications in the development of probability theory and statistics, numeration systems, and computer mathematics. All topics are covered making use of current educational technology, both from the point of view of their significance within mathematics and of their applicability in modeling the world using mathematics. In addition to regular class work, this course requires the successful completion of the Arithmetic Basic Skills Test administered by the Department. Students not receiving a satisfactory grade on this examination at entrance are required to attend special arithmetic skills laboratory sessions, in addition to their regular class work, until they do pass this test with a satisfactory score. <strong>Prerequisites:</strong> MATH 101 with a grade of at least &quot;C&quot; or two years of high school mathematics (Algebra I or higher) plus permission of the Department (obtained by receiving a satisfactory score on the placement test).</td>
</tr>
<tr>
<td>PYSC 100</td>
<td>Introduction to Psychology</td>
<td>This course provides a survey of general principles underlying human behavior. It includes study of the nervous system, perception, learning, memory, thinking, emotions, and individual differences in intelligence, aptitude, and personality.</td>
</tr>
</tbody>
</table>
DIVISION I ACADEMIC REQUIREMENTS

College-bound student-athletes will need to meet the following academic requirements to practice, receive athletics scholarships, and/or compete during their first year.

Core-Course Requirement
Complete 16 core courses in the following areas:

- **ENGLISH**
  - 4 years
- **MATH** (Algebra I or higher)
  - 3 years
- **NATURAL/PHYSICAL SCIENCE** (including one year of lab, if offered)
  - 2 years
- **ADDITIONAL** (English, math, or natural/physical science)
  - 1 year
- **SOCIAL SCIENCE**
  - 2 years
- **ADDITIONAL COURSES** (Any area listed to the left, foreign language or comparative religion/philosophy)
  - 4 years

**Full Qualifier**
- Complete 16 core courses.
  - Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school.
  - Seven of the 10 core courses must be in English, math or natural/physical science.
- Earn a core-course GPA of at least 2.300.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

**Academic Redshirt**
- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

**Full Qualifier:**
College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division I school.

**Academic Redshirt:**
College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

**Nonqualifier:**
College-bound student-athletes cannot practice, receive athletics scholarships or compete during their first year of enrollment at an NCAA Division I school.

**International Students:** Please visit ncaa.org/international for information and academic requirements specific to international student-athletes.
Test Scores

When a student registers for the SAT or ACT, he or she can use the NCAA Eligibility Center code of 99999 so his or her scores are sent directly to the NCAA Eligibility Center from the testing agency. Test scores on transcripts will **NOT** be used in his or her academic certification.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. A student may take the SAT or ACT an unlimited number of times before he or she enrolls full time in college. If a student takes either test more than once, the best subscores from each test are used for the academic certification process.

If you took the SAT in March 2016 or after, and plan to attend an NCAA Division I college or university in the 2018-19 or 2019-20 academic years, use the following charts to understand the core-course GPA you need to meet NCAA Division I requirements.

For more information on the SAT, click here to visit the College Board’s website.

![Sliding Scale Chart](chart.png)

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*Final concordance research between the new SAT and ACT is ongoing.

NCAA is a trademark of the National Collegiate Athletic Association.
2018 DIVISION II NEW ACADEMIC REQUIREMENTS

College-bound student-athletes first enrolling at an NCAA Division II school on or after Aug. 1, 2018, need to meet new academic rules to practice, compete and receive athletics scholarships during their first year.

Core-Course Requirement
Complete 16 core courses in the following areas:

- **ENGLISH**: 3 years
- **MATH (Algebra I or Higher)**: 2 years
- **NATURAL/PHYSICAL SCIENCE (including one year of lab, if offered)**: 2 years
- **ADDITIONAL (English, math, or natural/physical science)**: 3 years
- **SOCIAL SCIENCE**: 2 years
- **ADDITIONAL COURSES (any area listed to the left, foreign language or comparative religion/philosophy)**: 4 years

**Full Qualifier**
- Complete 16 core courses.
- Earn a core-course GPA of at least 2.200.
- Earn the ACT/SAT score matching your core-course GPA on the Division II full qualifier sliding scale (see back page).
- Graduate high school.

**Partial Qualifier**
- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division II partial qualifier sliding scale (see back page).
- Graduate high school.

**Full Qualifier:**
College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

**Partial Qualifier:**
College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

**Nonqualifier:**
College-bound student-athletes may not practice, compete or receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

**International Students:** Please visit ncaa.org/international for information and academic requirements specific to international student-athletes.
Test Scores

If you took the SAT in March 2016 or after, and plan to attend an NCAA Division II college or university in the 2018-19 or 2019-20 academic years, use the following charts to understand the core-course GPA you need to meet NCAA Division II requirements.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. You may take the SAT or ACT an unlimited number of times before you enroll full time in college. If you take either test more than once, the best subscores from each test are used for the academic certification process.

For more information on the SAT, click here to visit the College Board’s website.

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### Division II Full Qualifier Sliding Scale

<table>
<thead>
<tr>
<th>Core GPA</th>
<th>New SAT*</th>
<th>Old SAT (Prior to 3/2016)</th>
<th>ACT Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.300 &amp; above</td>
<td>400</td>
<td>400</td>
<td>37</td>
</tr>
<tr>
<td>3.275</td>
<td>410</td>
<td>410</td>
<td>38</td>
</tr>
<tr>
<td>3.250</td>
<td>430</td>
<td>420</td>
<td>39</td>
</tr>
<tr>
<td>3.225</td>
<td>440</td>
<td>430</td>
<td>40</td>
</tr>
<tr>
<td>3.200</td>
<td>460</td>
<td>440</td>
<td>41</td>
</tr>
<tr>
<td>3.175</td>
<td>470</td>
<td>450</td>
<td>41</td>
</tr>
<tr>
<td>3.150</td>
<td>490</td>
<td>460</td>
<td>42</td>
</tr>
<tr>
<td>3.125</td>
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<td>470</td>
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</tr>
<tr>
<td>3.100</td>
<td>520</td>
<td>480</td>
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<tr>
<td>3.075</td>
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<td>3.050</td>
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<td>45</td>
</tr>
<tr>
<td>3.025</td>
<td>560</td>
<td>510</td>
<td>46</td>
</tr>
<tr>
<td>3.000</td>
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<tr>
<td>2.975</td>
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<td>530</td>
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<tr>
<td>2.950</td>
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<td>540</td>
<td>47</td>
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Note: Final concordance research between the new SAT and ACT is ongoing.

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Stephen Decatur High School
9913 Seahawk Road
Berlin, MD 21811
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