A MESSAGE FROM THE SUPERINTENDENT

Dear Students:

The Student Education Planning Guide will assist you in choosing your high school course of study and planning for the future. Whether you intend to attend college or technical school, join the military, or enter the workforce, the decisions you make in choosing your classes are very important. Please carefully review the educational opportunities, course descriptions and requirements, and pertinent policies contained in this guide.

According to Lynn Linde, former president of the American Counseling Association, “Helping students identify where their passions lie is key to helping prepare them for future jobs and correlates to success in school.” Research has shown that students feel more engaged in school when they are able to see the connection between their studies and real-world applications, such as how what they’re learning in the classroom will benefit them after graduation.

In choosing a high school course of study, you should seek input from parents, teachers, and school counselors. To assist you in discovering and honing in your interests, school staff will work to determine potential careers that match your interests. Our academic programs afford you the opportunity to select classes and elective courses in your areas of interest and vocational needs. Please recognize the importance of working hard and putting forth the required effort, throughout your educational journey, to be fully prepared for a successful future.

We serve the families of Cecil County and we are dedicated to the success of all students. We are constantly striving to do all we can for the benefit of our students and working every day to provide a world-class education. Take advantage of all there is available to you in CCPS. Enjoy your high school years, set your goals, and make a plan to achieve them.

I wish you much success throughout your high school career and in the years to come.

Sincerely,

Jeffrey A. Lawson Ed.D.
Superintendent of Schools

Cecil County Public Schools

MISSION STATEMENT

Our mission is to provide an excellent prekindergarten through graduation learning experience that enables ALL students to demonstrate the skills, knowledge, and attitudes required for lifelong learning and productive citizenship in an ever-changing, global society.

STRATEGIC GOALS

Goal 1: All students will meet or exceed high academic standards.

Goal 2: All students will learn in safe, secure, and inviting environments.

Goal 3: All students will benefit from effective and efficient support and services provided by a learning organization.

CORE VALUES

Excellence
Safety and Wellness
Integrity
Learning
Flexibility
Collaboration

2019-20 Student Education Planning Guide

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Executive Directors

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Check out the interactive Student Education Planning Guide online at:
www.ccps.org
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Organization and Purpose of the *Student Education Planning Guide*

**Organization**
The *Student Education Planning Guide* is divided into the following four main sections:
- Career Clusters and Pathways;
- Need-to-Know Information;
- Earning College Credit; and
- Course Descriptions.

**Purpose**
The *Student Education Planning Guide* will assist each student in developing a long-term, personalized education plan to meet the challenges of the 21st century. Using this guide, students can see the relevance, purpose, and support for individual career goals that high school coursework, service learning, and extracurricular activities provide. This guide will help students, parents, and teachers discuss career goals in order to develop and implement a student graduation plan which takes the student beyond high school. With advanced planning and sustained effort, students can graduate from high school having earned college credit and/or industry certification.

**Career Clusters and Pathways**
In an effort to prepare students for a rapidly changing workplace, Cecil County Public Schools (CCPS) has developed career clusters and pathways. Career clusters are broad groupings of occupations and industries based on commonalities of services and function. Each career cluster has three or four career pathways. These pathways provide a sequence of courses and suggested options that provide quality preparation for a career in a selected cluster. CCPS offers four clusters with pathways that are listed to the right.

<table>
<thead>
<tr>
<th>CLUSTER &amp; PATHWAYS</th>
<th>CLUSTER</th>
<th>PATHWAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS &amp; COMMUNICATIONS</td>
<td>Digital Arts</td>
<td>Literary Arts</td>
</tr>
<tr>
<td></td>
<td>Performing Arts</td>
<td>Visual Communications</td>
</tr>
<tr>
<td>BUSINESS, FINANCE, &amp; MARKETING</td>
<td>Business Management</td>
<td>Finance</td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td>HEALTH &amp; HUMAN SERVICES</td>
<td>Education</td>
<td>Government/Public Services</td>
</tr>
<tr>
<td></td>
<td>Health Services/Consumer Services</td>
<td></td>
</tr>
<tr>
<td>SCIENCE, ENGINEERING, &amp; TECHNOLOGY</td>
<td>Construction, Manufacturing, Science, &amp; Engineering</td>
<td>Environmental, Agricultural, &amp; Natural Resources</td>
</tr>
<tr>
<td></td>
<td>Information Technology</td>
<td>Science, Technology, Engineering, Mathematics</td>
</tr>
</tbody>
</table>
### How to Use the Student Education Planning Guide

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the Career Cluster Interest/Aptitude Inventory (pg. 3) to identify the cluster(s) in which you have the greatest interest/aptitude. To complete your education plan online, visit the Student Education Planning Guide at <a href="http://www.ccps.org/domain/93">www.ccps.org/domain/93</a>.</td>
<td>Check the educational requirements for years 13 and 14 for your selected pathway. Plan your high school schedule to meet the specific requirements for your area of study.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn to the cluster(s) section in which you have the greatest interest/aptitude. In each pathway, place a check by the careers that interest you. The pathway with the most checks is likely to be the one that best matches your interest.</td>
</tr>
</tbody>
</table>

- Arts & Communications (pg. 5)
- Business, Finance, & Marketing (pg. 10)
- Health & Human Services (pg. 14)
- Science, Engineering, & Technology (pg. 18)

<table>
<thead>
<tr>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn to the Pathway Guide in which you have the greatest interest/aptitude.</td>
</tr>
</tbody>
</table>

### Career Clusters & Pathways

- **Arts & Communications**
  - Digital Arts ........................................... Pg. 6
  - Literary Arts .......................................... Pg. 7
  - Performing Arts ........................................ Pg. 8
  - Visual Communications .............................. Pg. 9

- **Business, Finance, & Marketing**
  - Business Management ............................... Pg. 11
  - Finance .................................................. Pg. 12
  - Marketing .............................................. Pg. 13

- **Health & Human Services**
  - Education .............................................. Pg. 15
  - Government/Public Services ......................... Pg. 16
  - Health Services/Consumer Services ............... Pg. 17

- **Science, Engineering, & Technology**
  - Construction, Manufacturing, Science & Engineering .................................. Pg. 19
  - Environmental, Agricultural, & Natural Resources ............................... Pg. 20
  - Information Technology ............................. Pg. 21
  - STEM ...................................................... Pg. 22

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**What activities interest you the most?**

Complete the chart on the next page to find possible career matches!

---

- **•••••**
### Career Cluster Interest/Aptitude Inventory

Put a check (✓) next to each statement that is true for you.

<table>
<thead>
<tr>
<th>ARTS &amp; COMMUNICATIONS</th>
<th>BUSINESS, FINANCE, &amp; MARKETING</th>
<th>HEALTH &amp; HUMAN SERVICES</th>
<th>SCIENCE, ENGINEERING &amp; TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Draw, paint, or work with clay</td>
<td>■ Find ways to make money</td>
<td>■ Help other people</td>
<td>■ Solve technical problems</td>
</tr>
<tr>
<td>■ Play or listen to music</td>
<td>■ Complete detailed work</td>
<td>■ Help people solve problems</td>
<td>■ Take things apart and put them back together</td>
</tr>
<tr>
<td>■ Decorate a room</td>
<td>■ Be a leader in a group</td>
<td>■ Teach others</td>
<td>■ Complete science experiments</td>
</tr>
<tr>
<td>■ Participate in plays</td>
<td>■ Organize special events</td>
<td>■ Work with a variety of people</td>
<td>■ Solve a puzzle</td>
</tr>
<tr>
<td>■ Read novels and stories</td>
<td>■ Learn new ways to use a computer</td>
<td>■ Help people improve their appearance</td>
<td>■ Use tools</td>
</tr>
<tr>
<td>■ Create with a computer</td>
<td>■ Start your own business</td>
<td>■ Complete volunteer work</td>
<td>■ Play chess</td>
</tr>
<tr>
<td>■ Create a video</td>
<td>■ Design advertisements</td>
<td>■ Work with young people</td>
<td>■ Build models</td>
</tr>
<tr>
<td>■ Write poems or stories</td>
<td>■ Work with numbers and data</td>
<td>■ Help people who are sick</td>
<td>■ Work outside</td>
</tr>
</tbody>
</table>

Would you like to...?

- Express yourself clearly
- Perform yourself clearly
- Play a musical instrument
- Draw, paint, or create with clay
- Sing or dance
- Write interesting stories
- Design a web page
- Communicate well with people

Are you able to...?

- Follow instructions
- Organize and manage your time
- Manage money
- Pay attention to details
- Work well with numbers
- Lead others
- Plan an activity for a group
- Convince others that your idea is right

Total checks

Count all the checks (✓) in each cluster and mark them at the bottom of the column. The cluster with the most checks is the one that seems to best match your interests/abilities. This may be the cluster you wish to explore in high school.

Highest interest cluster = ___________________________  Second highest interest cluster = ___________________________
How many years of education beyond high school will you need?

Selected sample careers are listed for each pathway on the following pages. These have been organized by the years of training required beyond high school. When choosing a potential career, consider your interest and aptitude, as well as the number of years of education needed. To access the Interest Inventory, visit the Student Education Planning Guide Self Assessment at www.ccps.org. For salary and other information regarding specific careers, visit clever.com/in/cecilcounty and/or www.bls.gov/ooh/.

Please note that some occupations may require more or fewer years of education. The current designations are meant as a guide.

- Occupations requiring 2 or fewer years of education after high school
- Occupations requiring 4 years of education after high school
- Occupations requiring more than 4 years of education after high school
### Digital Arts
- Court Reporter
- Digital Imaging Specialist
- Film/Videographer
- Illustrator
- Photographer
- Producer
- Technician
- Video Camera Operator
- Web Designer
- 3D Modeler
- Animation Artist
- Audio/Video Specialist
- Computer Animator
- Desktop Publisher
- Editor
- Game Designer
- Graphic Designer
- Multimedia Artist
- Production Manager
- Program Manager
- Programmer
- Screenwriter
- Video Designer/Editor
- Graphics Design CEO
- Researcher
- Software Engineer

### Literary Arts
- Advertiser
- Agent
- Community Relations Coordinator
- Web Designer
- Advertising Copyrighter
- Advertising Manager
- Author
- Broadcast News Analyst
- Business Manager/Agent
- Grant Writer
- Journalist
- Novelist
- Playwright
- Poet
- Public Information Officer
- Public Relations Specialist
- Publicist
- Publisher
- Radio Announcer
- Reporter
- Screenwriter
- Speech Writer
- Technical Writer
- Television Announcer
- Advertising Firm CEO
- Editor
- Historian
- Proofreader
- Public Relations Department Manager
- Researcher

### Performing Arts
- Announcer
- Booking Agent
- Costume Designer
- Disc Jockey
- Film and Television Crew
- Light Designer
- Magician
- Make-up Artist
- Model
- Producer
- Set Designer/Builder
- Stunt Person
- Actor
- Art/Drama Teacher
- Business Manager/Agent
- Casting Director
- Dance/Film Critic
- Dance Teacher/Educator
- Dancer
- Film Director
- Music Teacher
- Musician/Singer/Stage and Theater Manager
- Playwright
- Professional Athlete
- Artistic Director
- Choreographer
- Composer
- Conductor
- Music Arranger
- Sound Engineer
- Technical Director

### Visual Communications
- Cartoonist
- Craftsperson
- Exhibition Installer
- Fashion Art
- Illustrator
- Interior Designer
- Photographer
- Picture Framer
- Potter
- Sketch Artist
- Advertiser
- Animator
- Art Teacher
- Artist/Commercial Artist
- Arts & Crafts Recreation Director
- Audio/Video Technician
- Event Coordinator
- Film/Videographer
- Gallery/Museum Manager
- Graphic Designer
- Interior Designer
- Museum Director
- Painter
- Photojournalist
- Sculptor
- Special Effects Creator
- Textile Designer
- Art Historian
- Medical Illustrator
- Museum Curator
<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARTS &amp; COMMUNICATIONS</strong></td>
<td><strong>DIGITAL ARTS</strong></td>
</tr>
<tr>
<td><strong>Graduation Requirements</strong></td>
<td><strong>Y E A R S  1 3 &amp; 1 4</strong></td>
</tr>
<tr>
<td><strong>GRADE 9</strong></td>
<td><strong>Examples:</strong></td>
</tr>
<tr>
<td>English (4)</td>
<td>UMCP</td>
</tr>
<tr>
<td>or Honors</td>
<td>College of Arts &amp; Humanities</td>
</tr>
<tr>
<td><strong>GRADE 10</strong></td>
<td><strong>CC</strong></td>
</tr>
<tr>
<td>English 9 or Honors English 9</td>
<td>Associate of Applied Science/Visual Communications</td>
</tr>
<tr>
<td>or Honors English 10</td>
<td></td>
</tr>
<tr>
<td><strong>GRADE 11</strong></td>
<td></td>
</tr>
<tr>
<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
<td></td>
</tr>
<tr>
<td>or Honors</td>
<td></td>
</tr>
<tr>
<td><strong>GRADE 12</strong></td>
<td></td>
</tr>
<tr>
<td>English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 10</td>
<td></td>
</tr>
<tr>
<td>or Honors</td>
<td></td>
</tr>
<tr>
<td><strong>YEARS 13 &amp; 14</strong></td>
<td></td>
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<tr>
<td><strong>Examples:</strong></td>
<td></td>
</tr>
<tr>
<td>UMCP</td>
<td></td>
</tr>
<tr>
<td>College of Arts &amp; Humanities</td>
<td></td>
</tr>
<tr>
<td><strong>CC</strong></td>
<td></td>
</tr>
<tr>
<td>Associate of Applied Science/Visual Communications</td>
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</tr>
</tbody>
</table>

### English

**GRADE 9**: English 9 or Honors English 9

**GRADE 10**: English 10 or Honors English 10

**GRADE 11**: English 11, Hon English 11, AP Lang & Comp, or AP Lit & Comp

**GRADE 12**: English 12, AP Lang & Comp, AP Lit & Comp, or English 10

### Social Studies

**GRADE 9**: Government or Honors Government

**GRADE 10**: World History or Honors World History

**GRADE 11**: US History, Honors US History, or AP US History

**GRADE 12**: Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov & Pol, AP US History, Intro to Psychology, or Intro to Sociology

### Mathematics

**GRADE 9**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 10**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 11**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 12**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

### Science

**GRADE 9**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 10**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 11**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

**GRADE 12**: Science, Anatomy & Physiology, Earth and Environmental Systems, Biology*

### Physical Education

**GRADE 9**: Personal Fitness (.5), Health Education I (.5)

**GRADE 10**: Physical Education 10 (.5), Health Education II (.5)

### Technology Education

**GRADE 9**: Foundations of Technology (1), Intro to Engineering Design (1)

**GRADE 10**: Foundations of Technology (1), Intro to Engineering Design (1)

### Fine Arts

**GRADE 9**: Any Fine Arts Credit

**GRADE 10**: Any Fine Arts Credit

### World Language

**GRADE 9**: World Language (2)

**GRADE 10**: World Language (2)

**GRADE 11**: World Language (2)

**GRADE 12**: World Language (2)

### Recommended Electives

#### 2D Graphic Design I & II

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 3D Modeling & Animation

- Acting for Video Production

#### 4D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 5D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 6D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 7D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 8D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 9D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 10D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 11D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

#### 12D Graphic Design

- Any AP Level Course
- Design & CADD I, II
- Chemistry*
- Creative Crafts
- Drawing I, II
- ESOL I, II, III
- Foundations of Art
- Honors College Writing
- Honors Drama I, II
- Media Publications
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II*
- Photography I, II
- Physics*
- Principles of Business Admin & Management Psychology*
- SAT Review
- Sculpture & Ceramics I, II

### Notes

- Indicates CTE Completer
- *Includes the Honors/AP Level Course
- **Foundation course if recommended by college representative.

**Underline** = Cecil College
### ARTS & COMMUNICATIONS: LITERARY ARTS Cluster

#### Graduation Requirements

<table>
<thead>
<tr>
<th></th>
<th>GRADE 9</th>
<th>GRADE 10</th>
<th>GRADE 11</th>
<th>GRADE 12</th>
<th>YEARS 13 &amp; 14</th>
</tr>
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<tr>
<td><strong>English (4)</strong></td>
<td>English 9 or Honors English 9</td>
<td>English 10 or Honors English 10</td>
<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
<td>English 12, Hon English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
<td></td>
</tr>
<tr>
<td><strong>Social Studies (4)</strong></td>
<td>Government or Honors Government</td>
<td>World History or Honors World History</td>
<td>US History, Honors US History, or AP US History</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
<td></td>
</tr>
<tr>
<td><strong>Science (3)</strong></td>
<td>Science Options: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*</td>
<td>Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science</td>
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</tr>
<tr>
<td><strong>Physical Education (1)</strong></td>
<td>Personal Fitness (.5) Health Education I (.5)</td>
<td>Physical Education 10 (.5) Health Education II (.5)</td>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technology Education (1)</strong></td>
<td>Any Fine Arts Credit</td>
<td>World Language (Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)</td>
<td>Advanced Tech (Any)</td>
<td>Advanced Tech (Any)</td>
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</tbody>
</table>
## ARTS & COMMUNICATIONS: PERFORMING ARTS

### Graduation Requirements

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathway</th>
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</thead>
<tbody>
<tr>
<td>ARTS &amp; COMMUNICATIONS</td>
<td>PERFORMING ARTS</td>
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</table>

#### Grade 9

<table>
<thead>
<tr>
<th>Subject</th>
<th>Required Courses</th>
</tr>
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<tbody>
<tr>
<td>English</td>
<td>English 9 or Honors English 9</td>
</tr>
<tr>
<td>Social Studies</td>
<td>Government or Honors Government</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td>Science</td>
<td>Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Personal Fitness (.5)</td>
</tr>
<tr>
<td>Technology</td>
<td>Foundations of Technology (1)</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>Any Fine Arts Credit</td>
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#### Grade 10

<table>
<thead>
<tr>
<th>Subject</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English 10 or Honors English 10</td>
</tr>
<tr>
<td>Social Studies</td>
<td>World History or Honors World History</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td>Science</td>
<td>Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Physical Education 10 (.5)</td>
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<tr>
<td>Technology</td>
<td>Intro to Engineering Design (1)</td>
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<tr>
<td>Fine Arts</td>
<td>Any Fine Arts Credit</td>
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#### Grade 11

<table>
<thead>
<tr>
<th>Subject</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
</tr>
<tr>
<td>Social Studies</td>
<td>US History, Honors US History, or AP US History</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td>Science</td>
<td>Engineering, Biotech &amp; Engineering Design, or AP Psychology</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Health Education II (.5)</td>
</tr>
<tr>
<td>Technology</td>
<td>or Computer Science Principles (1)</td>
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<tr>
<td>Fine Arts</td>
<td>Any Fine Arts Credit</td>
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#### Grade 12

<table>
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<th>Subject</th>
<th>Required Courses</th>
</tr>
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<tbody>
<tr>
<td>English</td>
<td>English 12, Hon English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
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<tr>
<td>Social Studies</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td>Science</td>
<td>Engineering, Biotech &amp; Engineering Design, or AP Psychology</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Foundation of Technology (1)</td>
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<tr>
<td>Technology</td>
<td>or Computer Science Principles (1)</td>
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<tr>
<td>Fine Arts</td>
<td>Any Fine Arts Credit</td>
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#### Years 13 & 14

<table>
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<th>Subject</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
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<tr>
<td>Mathematics</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
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<tr>
<td>Science</td>
<td>Engineering, Biotech &amp; Engineering Design, or AP Psychology</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Foundation of Technology (1)</td>
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<tr>
<td>Technology</td>
<td>or Computer Science Principles (1)</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>Any Fine Arts Credit</td>
</tr>
</tbody>
</table>

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### Examples:

- **UMCP College of Arts & Humanities**
  - Associate of Arts/Performing Arts

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### Recommended Electives

- Advanced Choral Ensemble
- Advanced Fitness Training
- Aerobic Conditioning
- Anatomy & Physiology
- Any AP Level Course
- Band Front
- Design & CADD I, II
- Chamber Ensemble
- Chemistry
- Chorus
- Concert Band
- Concert Choir
- Construction/Manuf Tech
- ESOL I, II, III

- Fitness Walking
- Foundations of Art
- Foundations of Music
- Guitar I, II
- Honors College Writing
- Honors Drama I, II
- Intro to Dance
- Jazz Ensemble
- Lifetime Activities
- Microsoft Professional I
- Music Keyboard I, II
- Music Theory I, II
- Percussion Ensemble
- Physics

- Principles of Business
- Admin & Management
- Psychology*
- SAT Review
- Shakespeare
- Speech/Discussion & Debate
- Strength & Conditioning
- String Orchestra
- The Art of Expression I, II
- Theatre
- Theatre Design
- Wind Ensemble
- World Language I-IV*
- World Mythology
- Zoology

---

*Underline = Cecil College

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- Indicates CTE Completer

---

- Includes the Honors/AP level course
<table>
<thead>
<tr>
<th>Cluster ARTS &amp; COMMUNICATIONS</th>
<th>Pathway VISUAL COMMUNICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graduation Requirements</strong></td>
<td><strong>YEARS 13 &amp; 14</strong></td>
</tr>
<tr>
<td>English (4)</td>
<td>Examples:</td>
</tr>
<tr>
<td>GRADE 9</td>
<td>UMCP</td>
</tr>
<tr>
<td>English 9 or Honors English 9</td>
<td>College of Arts &amp; Humanities</td>
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<tr>
<td>GRADE 10</td>
<td>CC</td>
</tr>
<tr>
<td>English 10 or Honors English 10</td>
<td>Associate of Arts/Arts Option</td>
</tr>
<tr>
<td>GRADE 11</td>
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<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
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<td>GRADE 12</td>
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<td>English 12, Hon English 12, AP Lang &amp; Comp, or AP Lit &amp; Comp, or English 101</td>
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<tr>
<td>Social Studies (4) one per year</td>
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<tr>
<td>Government or Honors Government</td>
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<tr>
<td>World History or Honors World History</td>
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<tr>
<td>US History, Honors US History, or AP US History</td>
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<tr>
<td>Mathemtics (4) one per year (Choose a Sequence)</td>
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<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
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<tr>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra IIA</td>
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<tr>
<td>Sequence 3: Algebra I, Geometry, Algebra II or Algebra IIA &amp; Algebra IIIB, Trig.Functions/Statistics, Pre-calculus, Statistics</td>
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<tr>
<td>Sequence 4: Geometry, Algebra II or Algebra IIA &amp; Algebra IIIB, Trig.Functions/Statistics, Pre-calculus, Statistics, Calculus</td>
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<tr>
<td>Sequence 5: Honors Algebra II or Algebra II, Honors Trig.Functions/Statistics &amp; Honors Precalculus, AP Calculus or AP Statistics</td>
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<tr>
<td>Science (3)</td>
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</tr>
<tr>
<td>Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*, Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
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<tr>
<td>STEM</td>
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<tr>
<td>Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry, AP Physics, or AP Environmental Science</td>
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<tr>
<td>Physical Education (1) Health Education (1)</td>
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<tr>
<td>Personal Fitness (.5)</td>
<td>Physical Education 10 (.5)</td>
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<tr>
<td>Health Education I (.5)</td>
<td>Health Education II (.5)</td>
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<tr>
<td>Technology Education (1)</td>
<td></td>
</tr>
<tr>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
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</tr>
<tr>
<td>Fine Arts (1)</td>
<td></td>
</tr>
<tr>
<td>Creative Crafts, Foundations of Art or Any Level I Art Course</td>
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</tr>
<tr>
<td>World Language (2) AND/OR Adv Tech (2) AND/OR CTE Completer (4)</td>
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</tr>
<tr>
<td>Two (2) sequential credits beyond grade 8 are required by most 4-year colleges.</td>
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<tr>
<td>Advanced Tech (Any) Advanced Tech (Any)</td>
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<tr>
<td>World Language I-IV</td>
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<tr>
<td>Yearbook</td>
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<tr>
<td>Zoology</td>
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<tr>
<td>Recommended Electives</td>
<td></td>
</tr>
<tr>
<td>Anatomy &amp; Physiology</td>
<td>Basic Photography</td>
</tr>
<tr>
<td>Any AP Level Course</td>
<td>Beginning Ceramics</td>
</tr>
<tr>
<td>Any Level I, II, or Studio Art Course</td>
<td>Digital Imaging I, II, III</td>
</tr>
<tr>
<td>Art History</td>
<td>Drawing I</td>
</tr>
<tr>
<td>Design &amp; CADD I, II</td>
<td>Fundamentals of Design</td>
</tr>
<tr>
<td>Chemistry *</td>
<td>Intro to Sociology</td>
</tr>
<tr>
<td>ESOL I, II, III</td>
<td>Painting I</td>
</tr>
<tr>
<td>Honors College Writing</td>
<td>Photography I</td>
</tr>
<tr>
<td>Intro to Engineering Design</td>
<td>Sculpture</td>
</tr>
<tr>
<td>Microsoft Professional I</td>
<td></td>
</tr>
<tr>
<td>Physics *</td>
<td></td>
</tr>
<tr>
<td>Indicate CTE Completer</td>
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</tr>
<tr>
<td>It is recommended that a student pursuing a 4-year college degree take an AP Studio Art</td>
<td></td>
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</tbody>
</table>

*Includes the Honors/AP level course

Underline = Cecil College
### Social Studies Requirements

- Completer (4 years)
- Education (1 year)
- Language (2 years)
- Mathematics (2 years)
- Science (3 years)
- Fine Arts (1 year)
- Adv Tech (2 years)
- Government (2 years)
- Health (2 years)
- World Language (2 years)

### Arts & Communications

#### Visual Communications

- Graduation Sequence (Choose one per year)
  - Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology
  - Anatomy & Physiology, Earth and Environmental Systems, Biology*, AP Lang & Comp
  - Honors English 9
  - Honors English 10
  - Honors English 11
  - Honors English 12
  - AP Lang & Comp, AP US History, AP US Gov & Pol, AP Lit & Comp, or Intro to Psychology
  - AP Human Geo, AP US History, AP Literature, or Intro to Personal Finance
  - Associate of Arts/CC Human Resources, Business, Finance, & Marketing

#### Cluster Pathways

- STEM Science Options
  - Honors Algebra II or Algebra II, Honors Trig/Functions/Statistics, Precalculus, Statistics, Calculus
  - Algebra I, Geometry, Algebra II or Algebra IIA & Algebra IIB
  - Pre-algebra, Algebra I, Geometry, Topics of Math

- Arts & Communications
  - Creative Crafts, Foundations of Art or Any Level I Art Course
  - Grade 10
  - Grade 12
  - Grade 11
  - Years 13 & 14

- CTE Personal/Finance Options
  - Cont World Studies, Intro to Psychology
  - Accounting, Business Management, Marketing, Human Resources, Employee Assistance, Career Coach, Systems Analyst
  - Business, Finance, & Marketing

- Business, Finance, & Marketing Opportunities
  - Marketing Manager
  - Importer/Exporter
  - E-Business Consultant
  - Sales Representative
  - Telephone Operator
  - Visual Display Designer
  - Advertising & Promotion Manager
  - Fashion Retailer
  - Market Research Analyst
  - Marketing Department Manager
  - Media Coordinator/Buyer
  - Merchandise Manager
  - Public Relations Specialist
  - Sports Marketer
  - Advertising Firm CEO
  - E-Business Consultant
  - Fundraiser
  - Importer/Exporter
  - Marketing Manager
## Business, Finance, & Marketing: Business Management

### Graduation Requirements

<table>
<thead>
<tr>
<th>Grade</th>
<th>Year 13 &amp; 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 9</td>
<td>English 9 or Honors English 9</td>
</tr>
<tr>
<td>Grade 10</td>
<td>English 10 or Honors English 10</td>
</tr>
<tr>
<td>Grade 11</td>
<td>English 11, Honors English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
</tr>
<tr>
<td>Grade 12</td>
<td>English 12, Honors English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
</tr>
</tbody>
</table>

### English (4)

- Grade 9: English 9 or Honors English 9
- Grade 10: English 10 or Honors English 10
- Grade 11: English 11, Honors English 11, AP Lang & Comp, or AP Lit & Comp
- Grade 12: English 12, Honors English 12, AP Lang & Comp, AP Lit & Comp, or English 101

### Social Studies (4) one per year

- Grade 9: Government or Honors Government
- Grade 10: World History or Honors World History
- Grade 11: US History, Honors US History, or AP US History
- Grade 12: Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov & Pol, AP US History, Intro to Psychology or Intro to Sociology

### Mathematics (4) one per year (Choose a Sequence)

- **Sequence 1:** Pre-algebra, Algebra I, Geometry, Topics of Math
- **Sequence 2:** Algebra I, Geometry, Topics of Math, Algebra II A
- **Sequence 3:** Algebra I, Geometry, Algebra II or Algebra II A & Algebra IIB, Trig/Functions/Statistics, Precalculus, Statistics
- **Sequence 4:** Geometry, Algebra II or Algebra II A & Algebra IIB, Trig/Functions/Statistics, Precalculus, Statistics, Calculus
- **Sequence 5:** Honors Algebra II or Algebra II, Honors Trig/Functions/Statistics & Honors Precalculus, AP Calculus or AP Statistics

### Science (3)

- **Science:** Anatomy & Physiology, Earth and Environmental Systems, Biology*
- **Options:** Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology
- **STEM:** Honors Biology, Honors Chemistry, Honors Physics, AP Biology,
- **Sequence:** AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science

### World Language (2) AND/OR ADV. TECH (2) AND/OR CTE Completer Program (4)

- **World Language:** American Culinary Federation Program
- **Advanced Tech:** Cosmetology Program
- **CTE Completer Program:** Pro Start® Program
- **Career Based Learning Program:** Career Based Learning Program
- **Business and Marketing Program:** Business and Marketing Program

### Technology Education (1)

- **Personal Fitness (.5)**
- **Health Education I (.5)**
- **Physical Education 10 (.5)**
- **Health Education II (.5)**

### Physical Education (1) Health Education (1)

- **Foundations of Technology (1), Intro to Engineering Design (1)**
- **or Computer Science Principles (1)**

### Fine Arts (1)

- **Any Fine Arts Credit**

### Recommended Electives

- 2D & Graphic Design I, II
- Any AP Level Course
- Chemistry*
- Construction/Manuf. Tech
- ESOL I, II, III
- Honors College Writing Media Publications
- Microsoft Professional I
- Photography I, II
- Physics*
- Principles of Business Administration & Management
- Principles of Accounting
- & Finance
- Psychology*
- SAT Review
- Speech/Discussion & Debate
- Statistics*
- Trade Experience
- World Language I-IV*
- Yearbook
- Economics-Macro
- Economics-Micro
- Interpersonal Communications
- Principles of Management
- Principles of Marketing
- Public Speaking
- Technical Writing

*Includes the Honors/AP level course

Underline = Cecil College
### Cluster: BUSINESS, FINANCE, & MARKETING

#### Pathway: FINANCE

<table>
<thead>
<tr>
<th>Graduation Requirements</th>
<th>GRADE 9</th>
<th>GRADE 10</th>
<th>GRADE 11</th>
<th>GRADE 12</th>
<th>YEARS 13 &amp; 14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong> (4)</td>
<td>English 9 or Honors English 9</td>
<td>English 10 or Honors English 10</td>
<td>English 11, Honors English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
<td>English 12, Honors English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
<td></td>
</tr>
<tr>
<td><strong>Social Studies</strong> (4)</td>
<td>Government or Honors Government</td>
<td>World History or Honors World History</td>
<td>US History, Honors US History, or AP US History</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong> (3)</td>
<td>Science Options: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*, Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>STEM Options: Honors Biology, Honors Chemistry, Honors Physics, AP Biology, or AP Computer Science</td>
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</tr>
<tr>
<td><strong>Physical Education</strong> (1)</td>
<td>Personal Fitness (.5) Health Education I (.5)</td>
<td>Physical Education 10 (.5) Health Education II (.5)</td>
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<td></td>
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</tr>
<tr>
<td><strong>Technology Education</strong> (1)</td>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fine Arts</strong> (1)</td>
<td>Any Fine Arts Credit</td>
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<tr>
<td><strong>World Language</strong> (2)</td>
<td>(Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)</td>
<td>Advanced Tech (Any)</td>
<td>Advanced Tech (Any)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Examples:**

- **UMCP**
  - Robert H. Smith School of Business

- **CC**
  - Associate of Applied Science/Business & Commerce Technology

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*Underline = Cecil College

*Includes the Honors/AP level course

Indicates CTE Completer
### Cluster: BUSINESS, FINANCE, & MARKETING

#### Pathway: MARKETING

<table>
<thead>
<tr>
<th>Graduation Requirements</th>
<th>GRADE 9</th>
<th>GRADE 10</th>
<th>GRADE 11</th>
<th>GRADE 12</th>
<th>YEARS 13 &amp; 14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English (4)</strong></td>
<td>English 9 or Honors English 9</td>
<td>English 10 or Honors English 10</td>
<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
<td>English 12, Hon English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
<td><strong>Examples:</strong> UMCPC Robert H. Smith School of Business</td>
</tr>
<tr>
<td><strong>Social Studies (4)</strong></td>
<td>Government or Honors Government</td>
<td>World History or Honors World History</td>
<td>US History, Honors US History, or AP US History</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
<td></td>
</tr>
<tr>
<td><strong>Science (3)</strong></td>
<td>Science Options: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*. Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>STEM Options: Honors Biology, Honors Chemistry, Honors Physics, AP Biology, Sequence: AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science</td>
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<tr>
<td><strong>Physical Education (4)</strong></td>
<td>Physical Education 10 (.5) Health Education 1 (.5)</td>
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<tr>
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<td>Any Fine Arts Credit</td>
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<td><strong>World Language (2)</strong></td>
<td>Advanced Tech (Any)</td>
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<td><strong>CTE Completer (4)</strong></td>
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</table>

**Recommended Electives:**
- 2D & Graphic Design I, II
- Any AP Level Course
- Design & CAD I, II
- Chemistry*
- Drawing I, II
- Drawing/Painting I, II
- ESOL I, II, III
- Honors College Writing
- Media Publications
- Microsoft Professional I
- Photography I, II
- Physics*
- Principles of Business Administration & Management
- Principles of Accounting & Finance
- Program Developer Psychology*
- SAT Review
- Speech/Discussion & Debate
- Statistics*
- Theatre
- World Language I-IV
- Yearbook
- Economics-Macro
- Economics-Micro
- Interpersonal Communications
- Oracle III
- Oracle IV
- Principles of Management
- Principles of Marketing
- Public Speaking
- Technical Writing

---

*Includes the Honors/AP level course

**Underline = Cecil College**
<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>GOVERNMENT/ PUBLIC SERVICES</th>
<th>HEALTH SERVICES/ CONSUMER SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Care Worker</td>
<td>Bailiff</td>
<td>Cosmetologist</td>
</tr>
<tr>
<td>Coach</td>
<td>Court Clerk</td>
<td>Dental Hygienist</td>
</tr>
<tr>
<td>Home Day Care Provider</td>
<td>Dispatcher</td>
<td>Emergency Medical Technician/Paramedic</td>
</tr>
<tr>
<td>Humanitarian Aid Worker</td>
<td>Hunting/Fishing Guide</td>
<td>Home Health Aide</td>
</tr>
<tr>
<td>Martial Arts Instructor</td>
<td>Law Enforcement Officer</td>
<td>Licensed Practical Nurse</td>
</tr>
<tr>
<td>Motivation Speaker</td>
<td>Legal Secretary</td>
<td>Massage Therapist</td>
</tr>
<tr>
<td>Nanny</td>
<td>Lobbyist</td>
<td>Medical Lab Technician</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>Military/Armed Services Personnel</td>
<td>Optician</td>
</tr>
<tr>
<td>Substitute Teacher</td>
<td>Bronx</td>
<td>Pharmacy Technician</td>
</tr>
<tr>
<td>Academic Advisor</td>
<td>Child Support Worker</td>
<td>Physical Therapy Assistant</td>
</tr>
<tr>
<td>Addictions Counselor</td>
<td>Customs Officer</td>
<td>Radiology Technician</td>
</tr>
<tr>
<td>Child &amp; Youth Worker</td>
<td>Emergency Management Specialist</td>
<td>Respiratory Technician</td>
</tr>
<tr>
<td>Library Technician</td>
<td>Employment Counselor</td>
<td>Travel Agent</td>
</tr>
<tr>
<td>Performance Consultant</td>
<td>Fish/Game Warden</td>
<td>Athletic Trainer</td>
</tr>
<tr>
<td>Placement Specialist</td>
<td>Forensic Scientist</td>
<td>Chef</td>
</tr>
<tr>
<td>Registrar</td>
<td>Government Official</td>
<td>Dietitian</td>
</tr>
<tr>
<td>Teacher</td>
<td>Investigator</td>
<td>Medical/Nursing Instructor</td>
</tr>
<tr>
<td>Admissions Counselor</td>
<td>Language Interpreter</td>
<td>Medical Technician</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>Legal Secretary</td>
<td>Mortician</td>
</tr>
<tr>
<td>Career Counselor</td>
<td>Mediator</td>
<td>Occupational Therapist</td>
</tr>
<tr>
<td>College Administrator</td>
<td>Park Ranger</td>
<td>Personal Trainer</td>
</tr>
<tr>
<td>College Professor</td>
<td>Parks &amp; Recreation Director</td>
<td>Physical Therapist</td>
</tr>
<tr>
<td>Corporate Trainer</td>
<td>Probation/Corrections Officer</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td>English as a Second Language Specialist</td>
<td>Clergy</td>
<td>Abuse/Crisis Counselor</td>
</tr>
<tr>
<td>Financial Aid Advisor</td>
<td>Coroner</td>
<td>Anesthesiologist</td>
</tr>
<tr>
<td>Marriage &amp; Family Counselor</td>
<td>Crime Scene Investigator</td>
<td>Chiropractor</td>
</tr>
<tr>
<td>Counselor</td>
<td>Explosive Specialist</td>
<td>Dentist</td>
</tr>
<tr>
<td>Media Specialist</td>
<td>Fire Marshal/Investigator</td>
<td>Hospital Administrator</td>
</tr>
<tr>
<td>Principal</td>
<td>Judge</td>
<td>Nursing Home Administrator</td>
</tr>
<tr>
<td>Psychologist</td>
<td>Lawyer</td>
<td>Nurse Practitioner</td>
</tr>
<tr>
<td>Reading/Speech Specialist</td>
<td>Social Worker</td>
<td>Nutritionist</td>
</tr>
<tr>
<td>School Administrator</td>
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<td>Pharmacist</td>
</tr>
<tr>
<td>School Counselor</td>
<td></td>
<td>Physician</td>
</tr>
<tr>
<td>Speech Pathologist</td>
<td></td>
<td>Physician’s Assistant</td>
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<tr>
<td></td>
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<td>Psychiatrist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speech Pathologist</td>
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</table>
## Cluster: HEALTH & HUMAN SERVICES

### Pathway: EDUCATION

#### Graduation Requirements

<table>
<thead>
<tr>
<th>Grade</th>
<th>English (4)</th>
<th>Social Studies (4)</th>
<th>Mathematics (4)</th>
<th>Science (3)</th>
<th>Physical Education (1)</th>
<th>Technology Education (1)</th>
<th>Fine Arts (1)</th>
<th>World Language (2) AND/OR Adv Tech (2) AND/OR CTE Completer (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 9</td>
<td>English 9 or Honors English 9</td>
<td>Government or Honors Government</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
<td>Science Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*, Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>Personal Fitness (.5)</td>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
<td>Any Fine Arts Credit</td>
<td>World Language (Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)</td>
</tr>
<tr>
<td>Grade 10</td>
<td>English 10 or Honors English 10</td>
<td>World History or Honors World History</td>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra II A</td>
<td>Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*, Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>Health Education I (.5)</td>
<td>Physical Education 10 (.5)</td>
<td>Advanced Tech (Any)</td>
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</tr>
<tr>
<td>Grade 12</td>
<td>English 12, Hon English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology or Intro to Sociology</td>
<td>Sequence 5: Honors Algebra II or Algebra II A, Honors Trig/Functions/Statistics &amp; Honors Precalculus, AP Calculus or AP Statistics</td>
<td>Sequence 5: Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science</td>
<td>Health Education II (.5)</td>
<td>Intro to Engineering Design (1)</td>
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</tr>
<tr>
<td>Years 13 &amp; 14</td>
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</tbody>
</table>

### Examples:
- UMCP College of Education
- School of Public Health
- Undergraduate Studies

- CC Associate of Arts/Teacher Education
- Transfer Associate
- Associate of Applied Science/Early Childhood Education
- Associate of Arts in Teaching/Elementary
- Associate of Arts in Teaching/Secondary

### Recommended Electives

- Advanced Fitness Training
- Aerobic Conditioning
- Anatomy & Physiology
- Any AP Level Course
- Chemistry*
- Contemporary Health Issues
- Drawing I, II
- ESOL I, II, III
- Fitness Walking
- Honors College Writing
- Human Growth & Dev.
- Lifetime Activities
- Media Publications
- Microsoft Professional I
- Physics*
- Principles of Business Admin & Management
- Psychology*
- SAT Review
- Speech/Discussion & Debate
- Statistics*
- Strength & Conditioning
- The Art of Expression I, II
- Theatre
- World Language IV*
- World Mythology
- Yearbook
- Career Based Learning Program
- Teacher Academy of Maryland Program

- Indicates CTE Completer
- Includes the Honors/AP level course
- Underline = Cecil College
## Cluster
### HEALTH & HUMAN SERVICES

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<tr>
<th>Graduation Requirements</th>
<th>GRADE 9</th>
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<td><strong>Social Studies (4)</strong></td>
<td>Government or Honors Government</td>
<td>World History or Honors World History</td>
<td>US History, Honors US History, or AP US History</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
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<tr>
<td><strong>Science (3)</strong></td>
<td>Science Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>STEM Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science</td>
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</tr>
<tr>
<td><strong>Physical Education (1)</strong></td>
<td>Personal Fitness (.5) Health Education I (.5)</td>
<td>Physical Education 10 (.5) Health Education II (.5)</td>
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<td></td>
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<tr>
<td><strong>Technology Education (1)</strong></td>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
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<tr>
<td><strong>Fine Arts (1)</strong></td>
<td>Any Fine Arts Credit</td>
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<tr>
<td><strong>World Language (2)</strong></td>
<td>World Language (Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)</td>
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<tr>
<td><strong>AND/OR Adv Tech (2)</strong></td>
<td>Advanced Tech (Any)</td>
<td>Advanced Tech (Any)</td>
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<tr>
<td><strong>CTE Completer Program (4)</strong></td>
<td>Fire Science/EMS Program</td>
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</tbody>
</table>

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**Examples:**
- UMCP College of Behavioral & Social Sciences
  - School of Architecture, Planning, & Preservation
  - Undergraduate Studies A. James Clark School of Engineering

- CC Associate of Applied Science/Law Enforcement
- Associate of Arts/General Studies
- Associate of Applied Science in Emergency Medical Technician

*Underline = Cecil College*

*Includes the Honors/AP level course*
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<td>English 10 or Honors English 10</td>
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<tr>
<td><strong>Science (3)</strong></td>
<td>Science: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology*, Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
<td>Options: Honors Biology, Honors Chemistry, Honors Physics, AP Biology, AP Chemistry, AP Physics, AP Environmental Science, or AP Computer Science</td>
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<tr>
<td><strong>Physical Education (1)</strong></td>
<td>Personal Fitness (.5)</td>
<td>Physical Education 10 (.5)</td>
<td>Health Education II (.5)</td>
<td>Foundations of Technology (1), Intro to Engineering Design (1) or Computer Science Principles (1)</td>
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<tr>
<td><strong>Technology Education (1)</strong></td>
<td>Health Education I (.5)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fine Arts (1)</strong></td>
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<td></td>
<td>Any Fine Arts Credit</td>
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</table>

**World Language**

(Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)

<table>
<thead>
<tr>
<th>World Language</th>
<th>Advanced Tech (any)</th>
<th>Advanced Tech (any)</th>
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</thead>
<tbody>
<tr>
<td>World Language (2) AND/OR Adv Tech (2) AND/OR CTE Completer (4)</td>
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<tr>
<td>Advanced Fitness Training</td>
<td>Microsoft Professional I</td>
<td>Human Growth &amp; Development</td>
</tr>
<tr>
<td>Aerobic Conditioning</td>
<td>Physics*</td>
<td>Interpersonal Communications</td>
</tr>
<tr>
<td>Any AP Level Course Chemistry*</td>
<td>Principles of Biomedical Science</td>
<td>Intro to Sociology</td>
</tr>
<tr>
<td>Contemporary Health Issues</td>
<td>Principles of Business Admin &amp; Management</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>Earth and Environmental Systems</td>
<td>Psychology*</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>ESOL I, II, III</td>
<td>SAT Review</td>
<td></td>
</tr>
<tr>
<td>Fitness Walking</td>
<td>Speech/Discussion &amp; Debate</td>
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<tr>
<td>Health Care Internship</td>
<td>Statistics*</td>
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<tr>
<td>Honors College Writing</td>
<td>Strength &amp; Conditioning</td>
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<tr>
<td>Human Growth &amp; Development</td>
<td>Theatre</td>
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<tr>
<td>Lifetime Activities</td>
<td>Trade Experience</td>
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<tr>
<td><strong>Recommended Electives</strong></td>
<td>World Language I-IV*</td>
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</tbody>
</table>

*Includes the Honors/AP level course

Underline = Cecil College
### SCIENCE, ENGINEERING, & TECHNOLOGY

#### CONSTRUCTION, MANUFACTURING, SCIENCE, & ENGINEERING
- Aircraft Mechanic
- Appliance Technician
- Auto Technician
- Building Inspector
- CADD Technician
- Chemical Technician
- Contractor
- Draftsman
- Electrician
- Electronics Technician
- Gunsmith
- Heavy Equipment/Fork Lift Operator
- Mechanic
- Plumbing and HVAC Technician
- Robotics Technician
- Welder
- Architect
- Boiler Maker
- Carpenter
- Civil Engineer
- Construction Manager
- Electrical Engineer
- Industrial Engineer
- Product/System Engineer
- Safety Engineer
- Systems Engineer
- Aerospace Engineer
- Biomedical Engineer
- Chemical Engineer
- Chemist
- Civil Engineer
- Manufacturing Director
- Mechanical Engineer
- Nuclear Engineer
- Physicist

#### ENVIRONMENTAL, AGRICULTURAL, & NATURAL RESOURCES
- Butcher
- Florist
- Forester
- Groundskeeper
- Horse Trainer
- Landscaper
- Air Quality Manager
- Biologist
- Botanist
- Conservation Scientist
- Environmental Engineer
- Farm Manager
- Geologist
- Hazardous Materials Manager
- Landscape Designer & Architect
- Marine Biologist
- Meteorologist
- Microbiologist
- Oceanographer
- Pest Control Specialist
- Safety Inspector
- Urban Planner
- Water/Waste Water Treatment Operator
- Zoologist
- Geneticist
- Horticulturalist
- State Health Official

#### INFORMATION TECHNOLOGY
- Business Machines Operator
- Communications Technician
- Computer Technician
- Data Entry Operator
- Electrical Technician
- Support Technician
- Web Designer
- Webmaster
- Computer Network Specialist
- Computer Programmer
- Computer Scientist
- Electronics Engineer
- Multimedia Developer
- Security Specialist
- Software Applications Specialist
- Systems Analyst
- Video Game Developer
- Computer Engineer
- Information Technology Project Manager
- Network Engineer
- Security Analyst
- Software Engineer
- Systems Analyst
- Systems Architect
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<th>Pathway</th>
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<td>CONSTRUCTION, MANUFACTURING, SCIENCE, &amp; ENGINEERING</td>
</tr>
<tr>
<td><strong>Graduation Requirements</strong></td>
<td><strong>YEARS 13 &amp; 14</strong></td>
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<tr>
<td><strong>English</strong> (4)</td>
<td>English 9, Hon English 11, AP Lang &amp; Comp, English 10, AP Lit &amp; Comp</td>
</tr>
<tr>
<td><strong>Social Studies</strong> (4)</td>
<td>World History or Honors World History</td>
</tr>
<tr>
<td><strong>Mathematics</strong> (4) one per year (Choose a Sequence)</td>
<td>US History, Honors US History, AP US History, Intro to Psychology,</td>
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<tr>
<td><strong>Science</strong> (3)</td>
<td><strong>Physical Education (1)</strong></td>
</tr>
<tr>
<td><strong>Physical Education (1)</strong></td>
<td><strong>Advanced Tech (any)</strong></td>
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<td><strong>Technology Education (1)</strong></td>
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<td><strong>Fine Arts (1)</strong></td>
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<tr>
<td><strong>Recommended Electives</strong></td>
<td><strong>School of Technology Programs</strong></td>
</tr>
<tr>
<td>2D &amp; Graphic Design I, II</td>
<td>Fitness Walking</td>
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<tr>
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<tr>
<td>Any AP Level Course</td>
<td>Intro to Engineering Design</td>
</tr>
<tr>
<td>Applied trades Academy I</td>
<td>Microsoft Professional I</td>
</tr>
<tr>
<td>Construction/Manufacturing Tech</td>
<td>Physics *</td>
</tr>
<tr>
<td>Drawing I, II</td>
<td>Principles of Business Admin &amp; Management</td>
</tr>
<tr>
<td>Energy &amp; Power/Transport Tech</td>
<td>Principles of Engineering</td>
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<tr>
<td>Earth and Environmental Systems</td>
<td>Robotics</td>
</tr>
<tr>
<td>ESOL I, II, III</td>
<td>SAT Review</td>
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<td>ESOL I, II, III</td>
<td>Speech/Discussion &amp; Debate</td>
</tr>
<tr>
<td>ESOL I, II, III</td>
<td><strong>Underline = Cecil College</strong></td>
</tr>
</tbody>
</table>

**Examples:**

**UMCP**
School of Architecture, Planning, A. James Clark School of Engineering

**CC**
Associate of Applied Science/Computer Information Systems

Associate of Science
Transfer Options: Aerospace Engineering Chemical Engineering Civil Engineering Electrical Engineering Mechanical Engineering

**School of Tech Programs**
Automotive Tech Career Based Learning Construction Trades Diesel Technician Electrical Trades Heavy Industrial Maintenance PLTW Pre-Engineering Plumbing/HVAC Welding & Metals Tech

**Indicates CTE Completer**

*Includes the Honors/AP level course
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<td>Science Options: Anatomy &amp; Physiology, Applied Science/Natural Resources, Applied Science/Ag Science, Biology*, Chemistry*, Earth and Environmental Systems, Physics*, Physical Science w/Apps in Biology or Zoology</td>
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<tr>
<td>Fine Arts (1)</td>
<td>Any Fine Arts Credit</td>
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<tr>
<td>World Language (2)</td>
<td>World Language Advanced Tech (any)</td>
<td>Advanced Tech (any)</td>
<td>Agricultural Sciences Program</td>
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<tr>
<td>AND/OR Adv Tech (2)</td>
<td>ANY Language (2)</td>
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<td>Natural Resources Program</td>
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<tr>
<td>AND/OR CTE Completer Program (4)</td>
<td></td>
<td></td>
<td>Career Based Learning Program</td>
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</tbody>
</table>

**Recommended Electives**
- 2D & Graphic Design I, II
- Advanced Fitness Training
- Aerobic Conditioning
- Any AP Level Course
- Design & CADD I, II
- Calculus*
- Chemistry*
- Construction/Manuf Tech
- Drawing I, II
- Earth and Environmental Systems
- Energy & Power/Transport Tech
- ESOL I, II, III
- Fitness Walking
- Honors College Writing
- Human Body Systems
- Intro to Engineering Design
- Lifetime Activities
- Microsoft Professional I
- Photography I, II
- Physics*
- Principles of Biomedical Science
- Principles of Business Admin & Management
- Principles of Engineering
- Program Developer
- Robotics
- SAT Review
- Speech/Discussion & Debate
- Statistics*
- Strength & Conditioning
- Trade Experience
- World Language I-IV*
- Zoology

**Examples:**
- UMCP
  - College of Agriculture & Natural Resources
  - Combined Programs College of Life Sciences
- CC
  - Associate of Science/Biology
  - Associate of Science/Environmental Science

*Underline = Cecil College

*Includes the Honors/AP level course

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**Indicates CTE Completer**
### Graduation Requirements

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRADE 9</strong></td>
<td><strong>GRADE 10</strong></td>
</tr>
<tr>
<td><strong>English</strong> (4)</td>
<td>English 9 or Honors English 9</td>
</tr>
<tr>
<td><strong>Social Studies</strong> (4) one per year</td>
<td>Government or Honors Government</td>
</tr>
<tr>
<td><strong>Mathematics</strong> (4) one per year (Choose a Sequence)</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td></td>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra IIA</td>
</tr>
<tr>
<td></td>
<td>Sequence 6: Geometry, Algebra II or Algebra II A &amp; Algebra II B, Trig/Functions/Statistics, Precalculus, Statistics, Calculus, Calculus</td>
</tr>
<tr>
<td><strong>Science</strong> (3)</td>
<td>Science: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology* Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
</tr>
<tr>
<td><strong>Mathematics</strong> (4) one per year (Choose a Sequence)</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td></td>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra IIA</td>
</tr>
<tr>
<td></td>
<td>Sequence 6: Geometry, Algebra II or Algebra II A &amp; Algebra II B, Trig/Functions/Statistics, Precalculus, Statistics, Calculus, Calculus</td>
</tr>
<tr>
<td><strong>English</strong> (4)</td>
<td>English 9 or Honors English 9</td>
</tr>
<tr>
<td><strong>Social Studies</strong> (4) one per year</td>
<td>Government or Honors Government</td>
</tr>
<tr>
<td><strong>Mathematics</strong> (4) one per year (Choose a Sequence)</td>
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</tr>
<tr>
<td></td>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra IIA</td>
</tr>
<tr>
<td></td>
<td>Sequence 6: Geometry, Algebra II or Algebra II A &amp; Algebra II B, Trig/Functions/Statistics, Precalculus, Statistics, Calculus, Calculus</td>
</tr>
<tr>
<td><strong>Science</strong> (3)</td>
<td>Science: Anatomy &amp; Physiology, Earth and Environmental Systems, Biology* Options: Chemistry*, Physics*, Physical Science w/Apps in Biology, or Zoology</td>
</tr>
<tr>
<td><strong>Mathematics</strong> (4) one per year (Choose a Sequence)</td>
<td>Sequence 1: Pre-algebra, Algebra I, Geometry, Topics of Math</td>
</tr>
<tr>
<td></td>
<td>Sequence 2: Algebra I, Geometry, Topics of Math, Algebra IIA</td>
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<tr>
<td></td>
<td>Sequence 6: Geometry, Algebra II or Algebra II A &amp; Algebra II B, Trig/Functions/Statistics, Precalculus, Statistics, Calculus, Calculus</td>
</tr>
</tbody>
</table>

### Pathway: INFORMATION TECHNOLOGY

**Examples:**

- **UMCP**
  - College of Computer, Mathematical, & Physical Sciences
  - Robert H. Smith School of Business

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIENCE, ENGINEERING, &amp; TECHNOLOGY</td>
<td>INFORMATION TECHNOLOGY</td>
</tr>
</tbody>
</table>

**Recommended Electives**

- Microsoft Professional I
- Microsoft Office
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Access
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
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- Microsoft Outlook
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- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Word
- Microsoft Outlook
- Microsoft Visio
- Microsoft Publisher
- Microsoft Access
Cluster
SCIENCE, ENGINEERING, & TECHNOLOGY
(This pathway is only open to students who meet specific requirements.)

<table>
<thead>
<tr>
<th>Graduation Requirements</th>
<th>GRADE 9</th>
<th>GRADE 10</th>
<th>GRADE 11</th>
<th>GRADE 12</th>
<th>YEARS 13 &amp; 14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong> (4)</td>
<td>English 9 or Honors English 9</td>
<td>English 10 or Honors English 10</td>
<td>English 11, Hon English 11, AP Lang &amp; Comp, or AP Lit &amp; Comp</td>
<td>English 12, Hon English 12, AP Lang &amp; Comp, AP Lit &amp; Comp, or English 101</td>
<td></td>
</tr>
<tr>
<td><strong>Social Studies</strong> (4) one per year</td>
<td>Government or Honors Government</td>
<td>World History or Honors World History</td>
<td>US History, Honors US History, or AP US History</td>
<td>Cont World Studies, Intro to Personal Finance, AP Human Geo, AP Psychology, AP US Gov &amp; Pol, AP US History, Intro to Psychology, or Intro to Sociology</td>
<td></td>
</tr>
<tr>
<td><strong>Mathematics</strong> (5-7) one per year</td>
<td>Honors Algebra II (recommended)</td>
<td>Honors Trig/Functions/Statistics and Honors Precalculus</td>
<td>AP Calculus AB</td>
<td>AP Calculus BC or AP Statistics or one from the following: MAT 127 Statistics, MAT 201 Calculus I, MAT 202 Calculus II, MAT 203 Multivariable Calculus</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong> (5-7)</td>
<td>Honors Biology (required)</td>
<td>Honors Physics (required) (Grade 10 or Grade 11)</td>
<td>Honors Physics, AP Chemistry, AP Biology, AP Physics, AP Environmental Science, or AP Computer Science</td>
<td>AP Biology, AP Chemistry, AP Physics, or AP Environmental Science, or from one of the following: BIO 101/111 Gen Biology, BIO 222/232 Genetics w/lab, CHM 105 Gen Chem I, CHM 106 Gen Chem II, CHM 203 Organic Chem I, CHM 204 Organic Chem II, PHY 207 Gen Physics I w/lab, PHY 208 Gen Physics II w/lab</td>
<td></td>
</tr>
<tr>
<td><strong>Capstone Courses</strong> (1)</td>
<td>Honors Agricultural, Research, and Development Capstone</td>
<td>Honors Biomedical Innovations</td>
<td>Honors Education Academy Internship</td>
<td>Honors Engineering Design &amp; Development</td>
<td>Honors Interactive Media Portfolio Capstone</td>
</tr>
<tr>
<td><strong>Physical Education</strong> (1)</td>
<td>Personal Fitness (.5)</td>
<td>Physical Education 10 (.5)</td>
<td>Health Education I (.5)</td>
<td>Health Education II (.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Technology Education</strong> (1)</td>
<td>Introduction to Engineering Design (1) or Computer Science Principles (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fine Arts</strong> (1)</td>
<td>Any Fine Arts Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>World Language</strong> (2)</td>
<td>World Language</td>
<td>Any World Language</td>
<td>(Two [2] sequential credits beyond grade 8 are required by most 4-year colleges.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples:
CC Associate of Science
Transfer Options:
- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering

---

Indicates CTE Completer

*Includes the Honors/AP level course

Underline = Cecil College
A minimum of 25 credits must be earned in grades 9 through 12 to receive a Maryland High School Diploma. Students must be enrolled at least four years beyond grade 8 unless a formal waiver is granted by the Superintendent of Schools.

**Credit Requirements**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>• Algebraic concepts</td>
<td></td>
</tr>
<tr>
<td>• Geometric concepts</td>
<td></td>
</tr>
<tr>
<td>- A student must take one math credit per year beyond grade 8.*</td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>4</td>
</tr>
<tr>
<td>• Government</td>
<td></td>
</tr>
<tr>
<td>• World History</td>
<td></td>
</tr>
<tr>
<td>• US History or AP US History</td>
<td></td>
</tr>
<tr>
<td>• Contemporary World Studies, Intro to Personal Finance, AP US Government, AP Human Geography, AP Psychology, AP US History, CC Intro to Psychology Or CC Intro to Sociology</td>
<td></td>
</tr>
<tr>
<td>- A student must take one social studies credit per year beyond grade 8.*</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
</tr>
<tr>
<td>• Biology</td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>• .5 credit must be in Personal Fitness</td>
<td></td>
</tr>
<tr>
<td>Health Education</td>
<td>1</td>
</tr>
<tr>
<td>Technology Education</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td>Completion of the following:</td>
<td></td>
</tr>
<tr>
<td>- World Language (2)</td>
<td></td>
</tr>
<tr>
<td>and/or</td>
<td></td>
</tr>
<tr>
<td>- Advanced Technology (2)</td>
<td></td>
</tr>
<tr>
<td>and/or</td>
<td></td>
</tr>
<tr>
<td>- Career Technology Education Completer Program (4-10)</td>
<td></td>
</tr>
</tbody>
</table>

*Students may meet the Algebra I and English 10 requirements by achieving a 1450 combined score on the two assessments.

**Assessment Requirements**

To meet the graduation requirement, students enrolled in the courses highlighted below must:

- **Government**: pass the course AND pass the HSA test, the HSA re-test, or the Bridge Plan;
- **Biology**: pass the course AND participate in MISA;
- **Algebra I**: pass the course AND pass the MCAP test, the MCAP re-test, or the Bridge Plan*;
- **English 10**: pass the course AND pass the MCAP test, the MCAP re-test, or the Bridge Plan*.

*Transfer student requirements may differ based upon first time 9th grade enrollment.

To strengthen areas of weakness, **Appropriate Assistance** will be available to students who do not meet the assessment criteria. Modified High School Assessments (Mod-HSA) will be administered to a small number of identified students with specific disabilities and modified academic goals. Results of the High School Assessments are recorded on students’ report cards and transcripts.

**Service Learning Requirement**

All students must complete the graduation requirement in service learning. The requirement will be met by successful completion of infused service learning units in grades 6 through 9, or a service learning course in grades 11 or 12. Transfer students entering grades 6, 7, 8, or 9 will be required to complete the subsequent units upon enrollment in the Cecil County Public Schools (e.g., a student who transferred into the Cecil County Public Schools in grade 7 would be required to complete the service learning units in grades 7, 8, and 9 to meet the graduation requirement).

Transfer students need to meet one of the following:

- proof of previous satisfactory service learning; or
- satisfactory completion of the service learning course; or
- satisfactory completion of an approved service learning project co-planned by the student and the building level Service Learning Coordinator.
WEIGHTED CLASSES & CLASS RANK

A weighted grade point average (GPA) is used in computing class rank to compensate for certain courses differing in their level of academic challenge.

Weighted courses are designated by 📚.

HONORS/ADVANCED PLACEMENT COURSES

Honors and Advanced Placement courses challenge students to extend their learning through creativity and independence. Students who take honors and Advanced Placement courses should demonstrate the capacity to work independently and in small groups, read complex texts, and persevere in understanding difficult concepts. When considering enrollment in these courses, students should seek advisement from their current teachers and school counselor. Additional weight may be applied to a student’s GPA based on successful completion of the course requirements. These courses are open to all students.

ONLINE COURSES

Various online courses may be available to students who meet specific criteria and obtain the approval of their principals. Students receive online instruction in a classroom setting with a teacher to provide assistance when necessary. Only online courses approved by the Maryland State Department of Education and Cecil County Public Schools may be used to earn high school credit. These courses allow students to access Advanced Placement (AP) courses, appropriate assistance opportunities, and repeat courses where credit was not earned. For further information, see your school counselor.

TWILIGHT PROGRAM

The Twilight Program is an educational program designed to help students with behavioral and academic concerns. The primary focus of the program is to support students and provide opportunities for academic and behavioral growth and success.

MARYLAND HIGH SCHOOL CERTIFICATE

The goal of the certificate program is to use all available resources to ensure that students are able to enter the workplace and become responsible, productive citizens. The Maryland High School Certificate is awarded to students with disabilities who cannot meet the requirements for a diploma. A student with a disability may be considered for the Maryland High School Certificate if he/she:

• meets the criteria for taking the Alternate Maryland Assessment (Alt-MSA); or

is enrolled in an educational program for at least 4 years beyond grade 8 or its age equivalent, and is determined by an IEP team, with the agreement of the parents of the student, to have developed appropriate skills for the individual to enter the world of work, to act responsibly as a citizen, and to enjoy a fulfilling life in the world of work including, but not limited to: (a) gainful employment, (b) work activity centers, (c) sheltered workshops, and (d) supported employment; or

has been enrolled in an educational program for 4 years beyond grade 8 or its age equivalent and will have reached the age of 21 by the end of his/her current school year.

CREDIT FOR HIGH SCHOOL COURSES TAKEN DURING MIDDLE SCHOOL

High school credit will be granted for the following mathematics courses taken in middle school: Algebra I, Geometry, and Algebra II. The grade earned will not be used in the calculation of the high school grade point average nor will the credits earned count toward the high school mathematics requirements. Students must still complete one credit of mathematics per year in the high school.

High school credit will also be granted for the world language level I courses taken in middle school. The grade earned will not be used in the calculation of the high school grade point average. This world language credit will count toward one of the two sequential courses needed for the world language completer program. Students planning to attend college should note that most colleges do not recognize high school credits earned in middle school. These students should complete at least two (2) sequential world language credits while in grades 9 through 12 in order to meet college admission requirements.

The National Collegiate Athletic Association (NCAA) does not accept high school credits earned while in a middle school.

SUPPORT HALL

Support Hall is a class that provides students an opportunity to pursue credit recovery efforts or receive support for on-going academic efforts such as, but not limited to, independent study, complete Bridge Projects, and appropriate assistance. Students in support hall receive on-going support from teachers, administrators, mentors, counselors, and other professionals.
The Cecil County Interscholastic Athletics Program is an integral part of the educational process. The athletic program eligibility rules required for all students who wish to participate support the academic function of the Cecil County Public Schools by encouraging all students to reach their academic as well as athletic potential. To read the full policy please go to the Athletics page at bit.ly/athletic-eligibility for the most up-to-date policy.

**College Athletic Eligibility**

The National Collegiate Athletic Association (NCAA) has specific guidelines for high school student athletes who wish to be eligible to compete in college athletics. There are four basic criteria which include:

1. Graduation from high school with mathematics credits through Algebra II;
2. Minimum core grade point average;
3. Minimum ACT or SAT test score; and
4. Completion of 16 core courses.

Planning for college and college athletics should begin in grade nine in order to complete the core courses. Students should register with the NCAA clearinghouse by the end of their junior year. Check with your school counselor for information concerning the specifics of the above criteria. For more information on eligibility, visit: [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

**END-of-YEAR PROMOTION**

Cecil County Public Schools requires the following minimum number of accumulated credits to advance from one grade to another at the end of each school year.

- **Grade 9 to 10** - 5 Credits (2nd year in high school)
  - (Four of the five credits must be in *core subjects.*)
- **Grade 10 to 11** - 11 Credits (3rd year in high school)
  - (Six of the eleven credits must be *core subjects.*)
- **Grade 11 to 12** - 17 Credits (4th year in high school)
  - (Eight of the seventeen credits must be in *core subjects.*)

**MID-YEAR PROMOTION**

A student who has been retained may be promoted mid-year if that student has the potential to earn enough credits during the second semester to move ahead to the next grade level.

- **Repeat 9th Grader:**
  - Must have earned enough credits through mid-year that, if all credits are earned during the second semester, the student will have at least 11 credits. (Five of the eleven credits must be earned in *core subjects.*)
- **Repeat 10th Grader:**
  - Must have earned enough credits through mid-year that, if all credits are earned during the second semester, the student will have at least 17 credits. (Eight of the seventeen credits must be earned in *core subjects.*)

**WHAT IS A COMPLETER PROGRAM?**

All students must meet requirements in a completer program in order to graduate. A completer program is:

- 2 credits in the same World Language;
  OR
- 2 credits in Advanced Technology;
  OR
- a minimum of 4 credits in a Career & Technology Education (CTE) completer course sequence (see page 69 for CTE completer programs).
Cecil County School of Technology

The following programs are currently offered at the Cecil County School of Technology (CCST).

- Agricultural Sciences*
- AHP - Certified Nursing Assistant/GNA
- AHP - Certified Clinical Medical Assistant
- American Culinary Federation - Professional Cooking
- Automotive Technology
- Career Based Learning
- Construction Trades
- Cosmetology
- Diesel Technician
- Electrical Trades
- Fire Science/Emergency Medical Services
- Heavy Industrial Maintenance
- Homeland Security & Emergency Preparedness*
- Interactive Media Production*
- IT Networking Academy (Cisco Academy)
- Natural Resources
- Plumbing/HVAC Technology
- Project Lead the Way - Biomedical Sciences*
- Project Lead the Way - Pre-Engineering*
- Teacher Academy of Maryland*
- Welding & Metals Technology

*Capstone project required

These programs are evaluated on an ongoing basis to align the curriculum with current business and industry standards. Learning sites may vary according to program needs (e.g., Calvert Manor, Edgewood Area of Aberdeen Proving Ground, Union Hospital, Triangle Health Alliance). Prerequisites for these programs are upgraded according to business and industry recommendations. All students are required to sit for their program's industry recognized certification assessment. See course descriptions beginning on page 38 regarding local, state, and national licenses/certifications for each program.

There is a competitive application process for enrollment due to a limited number of spaces available for students per program. Students accepted into the Cecil County School of Technology will have done so either through the merit or lottery process. In programs where the number of applications exceeds the number of spaces available, the seats will be filled through a lottery process.

The lottery process will be conducted in a public setting at an announced date and location using an electronic randomizer. All applicants will then be notified through their home school counselor.

Merit process based upon:
- All absences in the first three semesters of high school
  - 12 or fewer days = 4 points
  - 13-18 days = 3 points
  - 19-24 days = 2 points
  - 25-30 days = 1 point
  - 31 or more = 0 points
- Grade point average earned in the first three semesters of high school
  - A (3.75-4.00) = 8 points
  - A- (3.50-3.74) = 7 points
  - B+ (3.26-3.49) = 6 points
  - B (2.75-3.25) = 5 points
  - B- (2.50-2.74) = 4 points
  - C+ (2.26-2.49) = 3 points
  - C (1.75-2.25) = 2 points
  - C- (1.50-1.74) = 1 point
- Application to a program non-traditional to gender = 1 point

Cecil County School of Technology

Licenses and Certifications Available Through CCST Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Certification/Trainings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Sciences</td>
<td>First Aid/CPR/AED Certification</td>
</tr>
</tbody>
</table>
| AHP - Certified Nursing Assistant/GNA | Certified Nursing Assistant (CNA)  
AHP - Certified Clinical Medical Assistant | Genric Nursing Assistant (GNA)  
First Aid/CPR/AED Certification |
| AHP - Certified Clinical Medical Assistant | Certified Clinical Medical Assistant  
First Aid/CPR/AED Certification |
| American Culinary Federation   | ServSafe  
ACT NOCTI (Written & Performance)  
First Aid/CPR/AED Certification |
| Automotive Technology         | ESCO 609 Refrigerant Recovery & Recycling, NATEF, First Aid/CPR/AED Certification      |
| Career Based Learning         | First Aid/CPR/AED Certification, Career Preparedness Certification, Financial Literacy Certification, Professional Communication Certification |
| Construction Trades           | National Center for Construction Education & Research (NCCER) (Core: Intro to Craft Skills and Level I Carpentry), First Aid/CPR/AED Certification |
| Cosmetology                   | Maryland State Board of Cosmetologist License  
First Aid/CPR/AED Certification |
| Diesel Technician             | First Aid/CPR/AED Certification, Suspension, Steering & Brakes Certification, Electrical/Electronics Systems Certification, Diesel Engines & Preventative Maintenance Certification |
| Electrical Trades             | NCCER (Core: Intro to Craft Skills and Level I Electrical), First Aid/CPR/AED Certification |
| Heavy Industrial Maintenance  | NCCER (Core: Intro to Craft Skills and Level I Heavy Industrial Maintenance), First Aid/CPR/AED Certification |
| Homeland Security & Emergency Preparedness | First Aid/CPR/AED Certification |
| Interactive Media Production  | Adobe Creative Suite Certification and/or program tools (e.g., XNA, C++)  
First Aid/CPR/AED Certification |
| IT Networking Academy         | Comp TIA+ Certification  
First Aid/CPR/AED Certification |
| Natural Resources             | Maryland Pesticide Applicator  
Certified Professional Horticulturist  
First Aid/CPR/AED Certification |
| Plumbing/HVAC Technology      | EPA Refrigerant Recovery  
Troubleshooting & Servicing Heat Pump Systems, Universal R-410-A Safety & Training, Compression Systems, System Diagnostic & Troubleshooting Procedures, Medium & High Efficiency Gas Furnaces,  
Basic Refrigeration and Charging Procedures, NCCER (Core: Intro to Craft Skills, Level I HVAC, and Level I Plumbing), First Aid/CPR/AED Certification |
| Project Lead the Way - Biomedical Sciences | First Aid/CPR/AED Certification, BACE Exam |
| Project Lead the Way - Pre-Engineering | First Aid/CPR/AED Certification |
| Teacher Academy of Maryland   | Para Pro  
First Aid/CPR/AED Certification |
| Welding & Metals Technology   | NCCER (Core: Intro to Craft Skills) Industrial Welding Level 1, American Welding Society Entry Level 1, First Aid/CPR/AED Certification |
Planning for Your Future

The school guidance office has many resources to assist students with making post-secondary education and career choices. This includes admission requirements and information about employment opportunities immediately following high school graduation.

A financial aid guide which provides local, state, and national scholarship and financial aid resource information is also available through the school guidance office. This guide contains a listing of websites for further information about financial aid and scholarships.

See your school counselor to find out how you can prepare for tomorrow...today!

Career Planning Websites
www.bls.gov/ooh
http://clever.com/in/cecilcounty
www.swnetwork.org
www.collegesimply.com

College Planning Websites
www.collegeanswer.com
www.collegeboard.org
www.fafsa.ed.gov
www.fastweb.com
www.goodcall.com
www.mhec.state.md.us
http://clever.com/in/cecilcounty
www.petersons.com

College Application Process

The college application process is a comprehensive one. Colleges and universities consider the whole student in their admission decisions. Students entering college must have a solid academic record and a variety of extra-curricular experiences. According to the National Association for College Admissions Counseling’s (NACAC) State of College Admission Report, the top factors in the admissions decision are:

1. High School transcript, which includes:
   -- overall grades
   -- difficulty of courses taken
   -- grade point average (GPA)

2. SAT®/ACT® Scores

3. Other factors, including:
   -- class rank
   -- quality of essay or writing sample
   -- teacher/counselor recommendations
   -- student interview
   -- work or extracurricular activities
   -- clear interest in attending the institution

Students should seek information on the college application process from their school counselors.

Visit Cecil County Public Schools Website at www.ccps.org
MINIMUM REQUIREMENTS FOR ADMISSION TO MOST POST-SECONDARY EDUCATIONAL PROGRAMS

UNIVERSITY SYSTEM OF MARYLAND (USM)

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Social Studies/History</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics (must include Algebra I, Geometry, and Algebra II)</td>
<td>4</td>
</tr>
<tr>
<td>Biological &amp; Physical Sciences</td>
<td>3*</td>
</tr>
<tr>
<td>World Language or Advanced Tech</td>
<td>2**</td>
</tr>
<tr>
<td>Academic Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

* For students interested in science-oriented careers (such as medicine, engineering, veterinary medicine, physical therapy), four years of science are recommended in three different science areas with at least three lab experiences.

** The two world language credits must be in the same language. Each institution will determine whether advanced technology courses will be accepted in lieu of world language. Please contact the institution(s) of your choice for information.

University System of Maryland includes:
- Bowie State University
- Coppin State University
- Frostburg State University
- Salisbury University
- Towson University
- University of Baltimore
- University of Maryland, Baltimore
- University of Maryland, Baltimore County
- University of Maryland, College Park
- University of Maryland Center for Environmental Science
- University of Maryland Eastern Shore
- University of Maryland University College

Each USM institution has guidelines for evaluating applications of students who have not completed all the required courses for admission. In some cases, students who lack a required course are permitted to demonstrate their competency in a given field as an alternative to completing a required high school course.

These courses, along with an acceptable standardized test score, represent the minimum high school requirements for application to the USM institutions previously listed. Individual campuses and programs also have additional requirements. Students should contact the admissions office to ask about these requirements.

For more information, visit www.usmd.edu.

FOUR-YEAR COLLEGES/UNIVERSITIES OUTSIDE THE STATE OF MARYLAND

Most four-year colleges/universities have the same minimum requirements as those of the USM. For information about the college of your choice, contact the college admissions office.

TWO-YEAR COLLEGES AND TECHNICAL COLLEGES

Most community and technical colleges welcome students with an "open door" philosophy. Skills assessments are usually required in the areas of English, math, and reading to assess students’ academic readiness for college-level coursework, or to strengthen these areas if necessary. Check with the individual college of your choice for more specific information.

TRANSFER INFORMATION

Credits earned at a community college will generally transfer to the University System of Maryland (USM). Contact the individual school for specific information on transfer policies.
SAT® Information

Students applying to college may need to take the SAT® exam and have their official score reports sent to the colleges of their choice. National test dates for the 2019-2020 SAT® are anticipated to be:

- August 24, 2019
- October 5, 2019
- November 2, 2019
- December 7, 2019
- March 7, 2020
- May 2, 2020
- June 6, 2020

The fee for the SAT Reasoning Test™ is approximately $48. The optional writing test is an additional $16. SAT Subject Test™ fees vary depending on the subject. Registration deadlines apply for all tests; these are listed on SAT® information documents and can be found at the SAT® website at www.collegeboard.org. Consult your school counselor for assistance.

Preparing To Take The SAT® Exam

Cecil County Public Schools offers assistance to help students prepare for the SAT Reasoning Test™. This assistance is offered during the school year depending upon demand, and will help students determine their strong and weak testing areas, provide them with appropriate assistance, and track their progress.

See page 52 in this guide for more information about the SAT® review courses available at your school during the school year.

For practice exams, sample SAT® questions, or the College Board SAT® preparation course, visit www.collegeboard.org and/or www.kahnacademy.org.

ACT® Information

Students applying to college may opt to take the ACT®. At most colleges/universities, the ACT® will satisfy both the SAT Reasoning Test™ and some SAT Subject Tests™. National test dates for the 2019-2020 ACT® program are scheduled for:

- September 7, 2019
- October 26, 2019
- December 7, 2019
- February 8, 2020
- April 18, 2020
- June 6, 2020

The ACT® fee is approximately $51. The optional writing test is an additional $18. Registration deadlines apply for all tests. Registration information can be found at the ACT® website www.actstudent.org. Visit the website for a practice exam or sample ACT® questions. Consult your school counselor for further assistance.

PSAT/NMSQT® Information

The PSAT/NMSQT® is a standardized test that provides practice for the SAT Reasoning Test™. If taken as a junior, it also gives students a chance to enter National Merit Scholarship Corporation (NMSC) scholarship programs. The PSAT/NMSQT® fee is approximately $16.

Students take the PSAT®:

- to assess reading, mathematics, and writing skills and provide strategies for improvement;
- to identify potential for Advanced Placement courses;
- to provide practice for the SAT®; and
- to identify areas of strength and weakness in reading, mathematics, and writing skills.

Science, Technology, Engineering, & Mathematics (STEM) Academy

The Cecil County STEM Academy is a challenging program of study for students planning to enter college to prepare for careers in mathematics, science, and engineering in an ever-changing and highly technical global society. Students accepted into the program will be offered a rigorous, accelerated curriculum, beyond the regular high school curriculum, rich in lab and work-based experiences. The STEM Academy courses are designed to challenge students with integrated technologies and extensive problem-solving. Opportunities to work with experts in the field and current technology both within the school and the community will be an essential part of the program and prove invaluable as students complete their capstone projects. Students will have the opportunity to apply to the STEM Academy during the second semester of grade 9.

Refer to page 22 for the STEM Academy course sequence.
## Secondary Schools Directory

<table>
<thead>
<tr>
<th>School Name</th>
<th>Phone Number</th>
<th>Address</th>
<th>City, State, Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bohemia Manor High School</td>
<td>410-885-2075</td>
<td>2755 Augustine Herman Highway</td>
<td>Chesapeake, MD, 21915</td>
</tr>
<tr>
<td>Bohemia Manor Middle School</td>
<td>410-885-2095</td>
<td>2757 Augustine Herman Highway</td>
<td>Chesapeake, MD, 21915</td>
</tr>
<tr>
<td>Cecil County School of Technology</td>
<td>410-392-8879</td>
<td>912 Appleton Road</td>
<td>Elkton, MD, 21921</td>
</tr>
<tr>
<td>Cherry Hill Middle School</td>
<td>410-996-5020</td>
<td>2535 Singerly Road</td>
<td>Elkton, MD, 21921</td>
</tr>
<tr>
<td>Elkton High School</td>
<td>410-996-5000</td>
<td>110 James Street</td>
<td>Elkton, MD, 21921</td>
</tr>
<tr>
<td>Elkton Middle School</td>
<td>410-996-5010</td>
<td>615 North Street</td>
<td>Elkton, MD, 21921</td>
</tr>
<tr>
<td>North East High School</td>
<td>410-996-6200</td>
<td>300 Irish town Road</td>
<td>North East, MD, 21901</td>
</tr>
<tr>
<td>North East Middle School</td>
<td>410-996-6210</td>
<td>200 East Cecil Avenue</td>
<td>North East, MD, 21901</td>
</tr>
<tr>
<td>Perryville High School</td>
<td>410-996-6000</td>
<td>1696 Perryville Road</td>
<td>Perryville, MD, 21903</td>
</tr>
<tr>
<td>Perryville Middle School</td>
<td>410-996-6010</td>
<td>850 Aiken Avenue</td>
<td>Perryville, MD, 21903</td>
</tr>
<tr>
<td>Rising Sun High School</td>
<td>410-658-9115</td>
<td>100 Tiger Drive</td>
<td>North East, MD, 21901</td>
</tr>
<tr>
<td>Rising Sun Middle School</td>
<td>410-658-5535</td>
<td>289 Pearl Street</td>
<td>Rising Sun, MD, 21911</td>
</tr>
<tr>
<td>Cecil Alternative Program</td>
<td>410-398-6900</td>
<td>at Providence</td>
<td>Elkton, MD, 21921</td>
</tr>
</tbody>
</table>

## Parent Resource Center

The Parent Resource Center exists to benefit all youth with disabilities by assisting parents, educators, and the community. The center provides training and education as well as connections to appropriate social agencies. The center’s resources include:

- a lending library of articles, newsletters, books, and videos providing a wide range of special education topics, such as special education law, types of disabilities, support group information, and recreational opportunities;
- a liaison to strengthen communication between parents and school personnel;
- a free workshop on Understanding Special Education;
- community presentations to both parent groups and school staff;
- a referral service for community resources; and
- a Family-to-Family Support Network.

Located at Gilpin Manor Elementary School  
410-996-5040

## NOTES

• • • NEED-TO-KNOW INFORMATION• • •
Earning College Credit

Cecil County high school students have several options to earn college credits while still enrolled in high school:

- Advanced Placement Program (AP) courses;
- Articulated courses for college credit; and
- Additional college credit options.

Students should begin the planning process early to ensure that appropriate documents are completed in a timely manner.

Advanced Placement® Program (AP) Courses

Advanced Placement® Program (AP) courses are available in the high schools, and students may demonstrate that they have learned the equivalent of college level work by passing the appropriate AP exam(s) provided by The College Board. Course credits granted for AP courses vary from college to college, so students should contact the college(s) of their choice for specific AP policies. Contact your school counselor for assistance.

Not all AP courses are available at every Cecil County high school. The College Board must approve each AP course. Some AP courses may be available online, but must be taken in a classroom setting during the regular school day. To register for AP courses not offered at your school, consult with your school counselor. Students must provide their own transportation to attend AP courses at another high school.

Parents and students should review a variety of criteria (e.g., academic achievement, teacher recommendation, standardized test scores, portfolio review) when considering enrollment in AP courses. To earn AP weighted high school credit, students enrolled in an AP course must take The College Board exam administered at the conclusion of the course. A fee of approximately $95 for each exam is required. Scores earned on an AP exam are not included as part of the final grade in the AP course.

A student may also take an AP exam without having taken the course. The College Board will provide a schedule of exams to be given during morning and afternoon sessions over a two-week period in May. Consult your school counselor for exam schedule information.

It is the student's responsibility to have an official AP Score Report sent to their selected college(s) in order to have their scores considered for college credit. To request an official score report and for more information:

www.collegeboard.org

Advanced Placement® Credits Awarded by Cecil College

<table>
<thead>
<tr>
<th>AP Exam</th>
<th>Credits</th>
<th>CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP Art History</td>
<td>3</td>
<td>ART 141</td>
</tr>
<tr>
<td>AP Biology *</td>
<td>4</td>
<td>BIO 101(S), BIO 111 or BIO 130 (S), BIO 131 or BIO 132 (S), BIO 133</td>
</tr>
<tr>
<td>AP Calculus (AB) *</td>
<td>4</td>
<td>MAT 201 (M)</td>
</tr>
<tr>
<td>AP Calculus (BC) *</td>
<td>8</td>
<td>MAT 201 (M), MAT 202 (M)</td>
</tr>
<tr>
<td>AP Chemistry *</td>
<td>4</td>
<td>CHM 103 (S), CHM 113 (Lab)</td>
</tr>
<tr>
<td>AP Computer Science A</td>
<td>6</td>
<td>CSC 109, CSC 205</td>
</tr>
<tr>
<td>AP Computer Science AB</td>
<td>6</td>
<td>CSC 109, CSC 205</td>
</tr>
<tr>
<td>AP Computer Science Principles</td>
<td>3</td>
<td>CSC 104</td>
</tr>
<tr>
<td>AP English Language &amp; Comp</td>
<td>3</td>
<td>EGL 101 (E)</td>
</tr>
<tr>
<td>AP English Literature &amp; Comp</td>
<td>6</td>
<td>EGL 101 (E), EGL 102 (H)</td>
</tr>
<tr>
<td>AP Environmental Science *</td>
<td>4</td>
<td>ENV 106 (S), ENV 116 (Lab)</td>
</tr>
<tr>
<td>AP European History</td>
<td>6</td>
<td>HST 101 (H), HST 102 (H)</td>
</tr>
<tr>
<td>AP French Language &amp; Culture</td>
<td>6</td>
<td>FRN 101 (H), FRN 102 (H)</td>
</tr>
<tr>
<td>AP German Language &amp; Culture</td>
<td>6</td>
<td>Art/Humanities Electives (H)</td>
</tr>
<tr>
<td>AP Gov't &amp; Politics (U.S.)</td>
<td>3</td>
<td>POS 201 (SS)</td>
</tr>
<tr>
<td>AP Human Geography</td>
<td>3</td>
<td>GEO 102 (SS)</td>
</tr>
<tr>
<td>AP Macro Economics</td>
<td>3</td>
<td>ECO 222 (SS)</td>
</tr>
<tr>
<td>AP Micro Economics</td>
<td>3</td>
<td>ECO 221 (SS)</td>
</tr>
<tr>
<td>AP Music Theory</td>
<td>7</td>
<td>MUC 110 (H), MUC 143 (H)</td>
</tr>
<tr>
<td>AP Physics 1: Algebra Based</td>
<td>4</td>
<td>PHY 181 (SL)</td>
</tr>
<tr>
<td>AP Physics 2: Algebra Based</td>
<td>4</td>
<td>PHY 182 (SL)</td>
</tr>
<tr>
<td>AP Physics C: Mechanics*</td>
<td>4</td>
<td>PHY 217 (SL)</td>
</tr>
<tr>
<td>AP Physics C: Electricity and Magnetism*</td>
<td>4</td>
<td>PHY 218 (SL)</td>
</tr>
<tr>
<td>AP Psychology</td>
<td>3</td>
<td>PSY 101 (SS)</td>
</tr>
<tr>
<td>AP Spanish Language &amp; Culture</td>
<td>6</td>
<td>SPN 101 (H), SPN 102 (H)</td>
</tr>
<tr>
<td>AP Statistics</td>
<td>4</td>
<td>MAT 127 (M)</td>
</tr>
<tr>
<td>AP Studio Art: Drawing</td>
<td>6</td>
<td>ART 130 (H), ART 230 (H)</td>
</tr>
<tr>
<td>AP U.S. History</td>
<td>6</td>
<td>HST 201 (H), HST 202 (H)</td>
</tr>
</tbody>
</table>

* Must earn a score of 4 or 5 on AP exam to receive Cecil College credit.
Cecil College reserves the right to re-evaluate and make necessary changes to credit awards.

For more Information about AP courses and credits that will be granted at other colleges and universities visit: bit.ly/creditsearch
Students completing specified courses at Cecil County high schools may receive college credit at the cooperating colleges as described in the tables on pages 32 and 33. There is no added cost for college credits granted through articulated agreements.

To receive college credits, students must successfully complete each of the high school courses with a B or better. Articulated credits will be granted upon enrollment at the specific institution.

Additional requirements vary by college, and some colleges may require additional documentation. Please see your school counselor for specific information on how you can earn articulated college credit.

**Articulated Courses**

<table>
<thead>
<tr>
<th>CCPS Course</th>
<th>College</th>
<th>Credits</th>
<th>College Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Sciences Program</td>
<td>UMD-IAA</td>
<td>3</td>
<td>Elective credit within major</td>
</tr>
<tr>
<td>AHP - Cert Nursing Assistant/ GNA Program</td>
<td>HCC</td>
<td>3</td>
<td>AHS 101</td>
</tr>
<tr>
<td></td>
<td>PTC</td>
<td>4</td>
<td>4 MED 111 Clinical Tech I PCT 106 Intro to Health Care</td>
</tr>
<tr>
<td></td>
<td>SU</td>
<td>3</td>
<td>TBD</td>
</tr>
<tr>
<td>AHP - Certified Clinical Medical Assistant Program</td>
<td>CC</td>
<td>12</td>
<td>Credit toward AS in Health Care Sciences</td>
</tr>
<tr>
<td></td>
<td>SU</td>
<td>3</td>
<td>TBD</td>
</tr>
<tr>
<td>AP Music Theory</td>
<td>HCC</td>
<td>4</td>
<td>MUS103</td>
</tr>
<tr>
<td>American Culinary Federation- Professional Cooking Program</td>
<td>CIA</td>
<td>3</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>SU</td>
<td>up to 18</td>
<td>Cooking Pathway</td>
</tr>
<tr>
<td></td>
<td>WH</td>
<td>1.5</td>
<td>FSM 1100</td>
</tr>
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</table>

**Cecil College**

<table>
<thead>
<tr>
<th>College</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCBC</td>
<td>4 AUTO126 AUTO171</td>
</tr>
<tr>
<td>DTCC</td>
<td>7 AUT111 AUT1202</td>
</tr>
<tr>
<td>NASCAR</td>
<td>4 OTC AUT109 AUT112 AUT113</td>
</tr>
<tr>
<td>UNO</td>
<td>6 AU126 AU127 HV101</td>
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</tbody>
</table>

**Construction Trades Program**

<table>
<thead>
<tr>
<th>College</th>
<th>PTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCC</td>
<td>2 BPR104</td>
</tr>
<tr>
<td>PCT</td>
<td>Credits Vary</td>
</tr>
<tr>
<td>PC</td>
<td>Credits Vary</td>
</tr>
</tbody>
</table>

**Design & CADD I**

<table>
<thead>
<tr>
<th>College</th>
<th>PTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTC</td>
<td>4 CAD 101 Drafting I</td>
</tr>
<tr>
<td>PTC</td>
<td>4 CAD 111 AutoCAD</td>
</tr>
</tbody>
</table>

**Electrical Trades Program**

<table>
<thead>
<tr>
<th>College</th>
<th>PTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>Credits Vary</td>
</tr>
<tr>
<td>PC</td>
<td>Credits Vary</td>
</tr>
</tbody>
</table>
### Articulated Courses (cont’d)

<table>
<thead>
<tr>
<th>CCPS Course</th>
<th>College</th>
<th>Credits</th>
<th>College Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Science Emergency Medical Services Program</td>
<td>CC</td>
<td>1 each</td>
<td>Aerial Operator, Fireground Operations, Firefighter Safety and Survival, Rescue Technician Vehicle &amp; Machinery Extrication, Rescue Technician Operations</td>
</tr>
<tr>
<td></td>
<td>CC</td>
<td>3</td>
<td>Firefighter I</td>
</tr>
<tr>
<td></td>
<td>CC</td>
<td>2</td>
<td>Firefighter II</td>
</tr>
<tr>
<td></td>
<td>CC</td>
<td>7</td>
<td>EMT Basic</td>
</tr>
<tr>
<td>Heavy Industrial Maintenance Program</td>
<td>PCT</td>
<td>Credits Vary</td>
<td>PC</td>
</tr>
<tr>
<td>Homeland Security &amp; Emergency Preparedness Program</td>
<td>CC</td>
<td>3</td>
<td>Intro to Criminal Justice</td>
</tr>
<tr>
<td></td>
<td>HCC</td>
<td>3</td>
<td>Intro to Homeland Security or Concepts of Emergency Management</td>
</tr>
<tr>
<td></td>
<td>UMUC</td>
<td>3</td>
<td>Intro to Homeland Security or Concepts of Emergency Management</td>
</tr>
<tr>
<td>Honors Drama I</td>
<td>CC</td>
<td>3</td>
<td>THE 160</td>
</tr>
<tr>
<td>Honors Drama II</td>
<td>CC</td>
<td>3</td>
<td>THE 160</td>
</tr>
<tr>
<td>Interactive Media Production Program</td>
<td>CC</td>
<td>2</td>
<td>VCP 116</td>
</tr>
<tr>
<td>Introduction to Marketing &amp; Advanced Marketing and Entrepreneur Capstone</td>
<td>CC</td>
<td>3</td>
<td>BUS 212</td>
</tr>
<tr>
<td>IT Networking Academy Program</td>
<td>CC</td>
<td>3</td>
<td>CSC 140</td>
</tr>
<tr>
<td>Microsoft Professional I</td>
<td>CC</td>
<td>3</td>
<td>CIS 101</td>
</tr>
<tr>
<td></td>
<td>PTC</td>
<td>3</td>
<td>BUS 106</td>
</tr>
<tr>
<td>Music Keyboard II</td>
<td>CC</td>
<td>1</td>
<td>MUC 102</td>
</tr>
<tr>
<td></td>
<td>HCC</td>
<td>1</td>
<td>MUS 115</td>
</tr>
<tr>
<td>Music Theory II</td>
<td>CC</td>
<td>3</td>
<td>MUC 143</td>
</tr>
<tr>
<td></td>
<td>HCC</td>
<td>3</td>
<td>MUS 101</td>
</tr>
<tr>
<td>Natural Resources Program</td>
<td>CC</td>
<td>2</td>
<td>HCS credits</td>
</tr>
<tr>
<td></td>
<td>CCBC</td>
<td>Credits Vary</td>
<td>HORT 150, HORT 124, FLOR 105, or HORT 106 and HOR 103</td>
</tr>
<tr>
<td></td>
<td>DTCC</td>
<td>3</td>
<td>AGS103</td>
</tr>
<tr>
<td>Oracle II</td>
<td>CC</td>
<td>3</td>
<td>CIS 261</td>
</tr>
<tr>
<td>Photography I</td>
<td>HCC</td>
<td>3</td>
<td>PHOTO101</td>
</tr>
<tr>
<td>Photography II+I</td>
<td>CC</td>
<td>4</td>
<td>VCP 101 or VCP 270 (pending portfolio review by VCP Director)</td>
</tr>
<tr>
<td>Plumbing/HVAC Program</td>
<td>PCT</td>
<td>Credits Vary</td>
<td>PC</td>
</tr>
</tbody>
</table>

### CCPS Course

<table>
<thead>
<tr>
<th>CCPS Course</th>
<th>College</th>
<th>Credits</th>
<th>College Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Business &amp; Management &amp; Entrepreneurship Principles of Accounting &amp; Finance</td>
<td>CC</td>
<td>3</td>
<td>BUS 103</td>
</tr>
<tr>
<td>Project Lead the Way® Bio-medical Sciences Program</td>
<td>SU</td>
<td>4</td>
<td>BIO 113*</td>
</tr>
<tr>
<td>Project Lead the Way® Pre-Engineering Program</td>
<td>UMBC</td>
<td>3</td>
<td>ENES 101</td>
</tr>
<tr>
<td>ProStart Program</td>
<td>StU</td>
<td>4.5</td>
<td>CUL 111, CUL 121, CUL 160, CUL 270</td>
</tr>
<tr>
<td>Teacher Academy of Maryland Program</td>
<td>BSU</td>
<td>3</td>
<td>EDUC 316</td>
</tr>
<tr>
<td></td>
<td>CC</td>
<td>3</td>
<td>EDUC 101</td>
</tr>
<tr>
<td></td>
<td>CS, MSU</td>
<td>3</td>
<td>EDUC 200</td>
</tr>
<tr>
<td></td>
<td>FSU</td>
<td>6</td>
<td>EDUC 201 &amp; 202</td>
</tr>
<tr>
<td></td>
<td>HC</td>
<td>3</td>
<td>EDUC 204</td>
</tr>
<tr>
<td></td>
<td>HCC</td>
<td>3</td>
<td>Foundations of Education</td>
</tr>
<tr>
<td></td>
<td>SAL</td>
<td>3</td>
<td>Foundations of Education</td>
</tr>
<tr>
<td></td>
<td>SM</td>
<td>4</td>
<td>EDUC 140</td>
</tr>
<tr>
<td></td>
<td>SU</td>
<td>3</td>
<td>PSY 206</td>
</tr>
<tr>
<td></td>
<td>TU</td>
<td>3</td>
<td>EDUC 202</td>
</tr>
<tr>
<td>Welding &amp; Metals Technology Program</td>
<td>HCC</td>
<td>2</td>
<td>ENGR101</td>
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</tbody>
</table>

*Must have a GPA of B or better in the PLTW courses with no more than one C and score 80% or better on all PLTW final exams

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**Cecil College Admissions and Scholarship Information**

Students choosing to attend Cecil College are required to complete skills assessments in writing, reading, and mathematics. Scores achieved on skills assessments are used to determine enrollment in college courses. More information regarding skills assessments may be obtained by calling Cecil College at (410-287-1000) or visiting the website at [www.cecil.edu](http://www.cecil.edu).

Cecil College offers a college-bound partial scholarship for high school juniors who have a 3.0 GPA or higher and high school seniors who have a 2.5 GPA or higher. Additionally, based on Senate Bill 740, if a family’s annual income falls within the Income Eligibility Guidelines set by the USDA Food and Nutrition Service, students may qualify for additional tuition assistance. More information about tuition assistance is available from your school counselor, Student Services at Cecil College (410-287-1000), or the website at [www.cecil.edu](http://www.cecil.edu).

**Financial Aid for Early College Entrance Programs**

Although students are not eligible to receive federal financial aid until they have graduated from high school or earned a General Educational Development (GED) credential, they may be eligible for selected institutional scholarships.
Additional College Credit Options

Dual Enrollment Courses
Qualified high school students may enroll in specified college course(s) and receive both high school and college credit for the course(s).

To be eligible for dual credit, college courses must support the student's graduation plan and must align with the courses identified in this Student Education Planning Guide. Prior to enrolling in a college course for high school credit, eligible students must meet program guidelines and complete required forms.

For successful completion of college courses that are two (2) or fewer credits, one-half (1/2) high school credit will be awarded. For successful completion of a three (3) credit college course, one (1) high school honors weighted credit will be awarded. For successful completion of a college course that is four (4) or more credits and at least a 100 level course, two (2) high school honors weighted credits will be awarded. Students electing to enroll in a course that counts as college credit and high school credit must have prior approval of the Superintendent through an application process.

Dual Enrollment - Repeat College Courses
Qualified high school students may enroll in repeat college level math and/or science courses for dual enrollment. To be eligible for repeat college level dual enrollment courses, students must have met the four (4) math and/or three (3) science credit requirement. Counselors will seek repeat dual enrollment course approval from the Executive Director of High School Education.

Senior Waiver
Students may request to waive a portion of their high school day to take college courses.

Partial Day Waiver -
Seniors approved for a partial day waiver will attend classes at their high school and at a selected college or career/technical school. They will graduate with their high school class and retain full privileges as high school students. Prior application and approval from the Superintendent is required for this option. Students and parents/guardians must submit requests to the Board for a partial day waiver of the senior year by the deadline indicated in CCPS regulation IKFA-RB Guidelines for Full Day Waiver of Senior Year, which may be found at bit.ly/boarddocsccps.

Students requesting a partial day waiver must:
- have completed all testing and service learning requirements for the state of Maryland;
- have a minimum 2.5 GPA, with a transcript reviewed by the principal;
- meet all college admission requirements and enroll in and complete the minimum number of college credits (level 101 or higher) required for a partial day waiver;
- submit documentation of enrollment in an accredited college or approved career/technical school; and
- be recommended by the principal.

Full Day Waiver -
Seniors on full day waivers attend classes at a selected college or career/technical school and graduate with their high school class. Prior approval from the Superintendent is required for this option. Students and parents/guardians must submit requests to the Board for a full day waiver of the senior year by the deadline indicated in CCPS regulation IKFA-RA which may be found at bit.ly/seniorwaiver.

Students requesting a full day waiver must:
- have completed all testing and service learning requirements for the state of Maryland;
- have a minimum 2.5 GPA, with a transcript reviewed by the principal;
- meet all college admission requirements and enroll in and complete the minimum number of college credits (level 101 or higher) required for a full day waiver;
- submit documentation of enrollment in an accredited college or approved career/technical school as a full-time student; and
- be recommended by the principal.

Students who are granted a full day waiver are eligible to participate in extra-curricular activities including interscholastic athletics provided a portion of the equivalent program takes place in the high school during the traditional day. Full day waiver students are not eligible for valedictorian or salutatorian honors.
Early Graduation

Students may request to terminate attendance in high school at the end of 11th grade if all credit requirements and other applicable graduation requirements are satisfied. The student must:

• be admitted as a full-time student to an approved (accredited) college program; or
• be admitted as a full-time student to an approved (accredited) career, technical or vocational school, or other approved post-secondary program; or
• show proof of enlistment to any branch of the Armed Services; or
• demonstrate compelling personal circumstances to the satisfaction of the Superintendent.

Students electing to graduate early relinquish all student privileges associated with the senior year, including participation in interscholastic athletics and eligibility for valedictorian and salutatorian honors.

Students electing to graduate early:

• will be ranked with the class with which they would normally graduate;
• may take part in graduation ceremonies with the earlier graduation class;
• may sit for senior portraits; however, portraits will not be printed in the senior section of the yearbook; and
• may compete for college financial aid and/or scholarships—local, state, or national.

Students and parents/guardians must submit requests for early graduation to school counselors by June 15 after completion of the tenth grade.

College Campus Courses

Students must be 16 years of age or older to enroll in college courses on college campuses. College course schedules must not conflict with students’ required high school schedules. When selecting college classes, please be aware that college classes may meet in the evening or on the weekend.

Early College Academy (ECA) is a dual enrollment partnership between the Cecil County Public Schools and Cecil College. ECA is a four-year high school program where students will be taking college courses in conjunction with high school courses. All eighth-grade CCPS students are eligible to apply to this program currently held at Elkton and Perryville High School. Upon graduation the students will earn an Associate's Degree in General Studies from Cecil College and a diploma from Cecil County Public Schools.

The ECA is a bold approach, based on the principle that academic rigor combined with the opportunity to save time and money is a powerful motivator for students to work hard and meet serious intellectual challenges. ECA is a unique pathway for students to achieve and enhance their high school educational experience. This program blends high school and college into a rigorous yet supportive program, compressing the time it takes to complete a high school diploma and the first two years of college. See your school counselor for more details.

Senior Option

Seniors may request to opt out of up to 2 classes per year if they meet specific criteria. The student must be on track to graduate and have earned a minimum of nineteen (19) credits; have a high school schedule that accommodates his/her graduation needs including college & career readiness requirements, making sufficient progress in necessary Bridge Plan(s), passing all classes; and provide his/her own transportation to and/or from school.

Notes

Early College
Course Descriptions

The courses listed on the following pages are offered by Cecil County public high schools. Course descriptions in this guide are based upon instructional objectives and course standards. Course availability is dependent upon the special needs of the school population, the staff allocation at each school, and the expertise of each school’s staff.

Courses are described in the following categories:

- BUSINESS & MARKETING PROGRAM
- CAREER & TECHNOLOGY EDUCATION
- COMPUTER PROGRAMMING
- ENGLISH LANGUAGE ARTS
- ESOL
- FINE ARTS
- MATHEMATICS
- PHYSICAL EDUCATION & HEALTH EDUCATION
- PROSTART®
- SCIENCE
- SERVICE LEARNING
- SOCIAL STUDIES
- SUPPORT SERVICES
- TECHNOLOGY EDUCATION
- WORK-BASED LEARNING
- WORLD LANGUAGES

Please refer to the legend below for the meaning of the icons used in the course descriptions.

**LEGEND**

- **PRE:** Prerequisite Course(s) (Required)
- **REC:** Recommended Course(s) (Suggested)
- **graduate_cap:** Eligible for College Credit (See pages 31-33 for credit value)
- **car:** Student Transportation (Required)
- **AT:** Advanced Technology Education Credit
- **weight:** Weighted Course
- **RC:** May Be Taken for Repeat Credit
- **TE:** Technology Education Credit
- **physical_exam:** Physical Exam (Required)
- **license:** License/Certification
- **HSA:** High School Assessment Test Requirement
- **P/F:** Pass/Fail (non-graded)
- **MCAP:** Maryland Comprehensive Assessment Program
- **MISA:** Maryland Integrated Science Assessment
BUSINESS and MARKETING PROGRAM

PRINCIPLES OF BUSINESS MANAGEMENT AND ENTREPRENEURSHIP
0108401 1 Credit  Grades 10-12
This course provides a foundational understanding of the role of business in a global society, American business as a dynamic process, and forms of business ownership, including 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. Students will develop the communication skills that will be necessary for success in the workplace and college. Students will be expected to think analytically; improve written and oral communication skills; enhance listening and questioning skills; learn and practice the art of conversation; improve public speaking skills; broaden their awareness of career options; practice using teamwork to make decisions and solve problems; and learn why interpersonal and networking skills can help them succeed. Students will also be taught the necessary MS Word skills in application and relevance in the business world.

PRINCIPLES OF ACCOUNTING AND FINANCE
0108501 1 Credit  Grades 10-12
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. Students will learn to apply these concepts using MS Excel. Students will identify positions and career paths in the field of accounting and will examine the role of ethics and social responsibility in decision making. PRE: Principles of Business Management Entrepreneurship.

INTRODUCTION TO MARKETING
0108601 1 Credit  Grades 10-12
This course introduces students to the essential concepts of marketing theory and to the foundations, functions, and benefits of marketing in a free enterprise system. Throughout the 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 understand and demonstrate strong interpersonal skills and develop an appreciation of human diversity. By the end of the course, students will have a solid understanding of the many diverse career opportunities in the field of marketing. PRE: Principles of Business Management Entrepreneurship; Completion of or concurrent enrollment in Principles of Accounting and Finance.

ADVANCED MARKETING AND ENTREPRENEURSHIP CAPSTONE
0108701 1 Credit  Grades 11-12
This course is designed to be the second of two sequential marketing courses. 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. Throughout the course, students will use strong interpersonal skills and corporate technologies when conducting primary and secondary research. In addition, students will include alternatives of electronic and internet marketing within their marketing plan. Students will create and/or use a marketing information system(s) when working with or collecting data. Students will integrate their knowledge of legal issues, ethics, diversity and social responsibilities in developing their marketing plan. PRE: Principles of Business Management Entrepreneurship; Principles of Accounting and Finance; Introduction to Marketing.

BUSINESS EDUCATION INTERNSHIP
0130101 1 Credit  Grade 12
0130102 2 Credits  Grade 12
This is a work-based learning course in which students observe and interact with professionals performing related pathway activities in an approved professional business setting. The internship provides the opportunity for professional and personal growth. A strict attendance policy is in effect. Students will receive a letter grade for this course based upon the number of weekly hours completed, weekly reflection journals, and monthly evaluations from the employer. RC

MICROSOFT PROFESSIONAL I
0106301 1 Credit  Grades 10-12
This course offers instruction in the Microsoft Office professional suite of applications and assists students in developing online and information technology skills to meet the demands of a digital society. Students develop the communication skills that are necessary for success in both the workplace and college. Students completing this course develop proper input techniques and the knowledge required for the use of computer hardware, software, networks, and the Internet. Students gain competencies in MS Word, MS Excel, MS Access, and MS PowerPoint. Students earning a grade of B or higher in Microsoft Professional I may receive articulated college credit.

FUTURE BUSINESS LEADERS OF AMERICA
Future Business Leaders of America (FBLA) chapters are active in every high school in Cecil County. Students develop qualities that are necessary to become responsible business leaders through participation in community service activities, competitive events, conferences, and leadership training.

Competitions are held in the spring and winners advance to national competition in June.  www.fbla-pbl.org
The following Career and Technology Education (CTE) programs are offered only at the Cecil County School of Technology (CCST). Students from the five county high schools have the opportunity to begin programs during their junior year by a designated application process (see page 26). Students complete their programs during their senior year. Students are encouraged to develop positive work attitudes while building individual skills for success. Transportation is provided from the home school to and from CCST. Program fees include the cost of trade appropriate clothing, tools, and license/certification tests. Transfer students will be considered on a case-per-case basis based on program availability.

ACADEMY OF HEALTH PROFESSIONS: CERTIFIED NURSING ASSISTANT/GERIATRIC NURSING ASSISTANT PROGRAM

Students are to provide the following: stethoscope, blood pressure cuff, and a watch with a sweep second hand. Students earning a B or higher in all the courses within the program may qualify for articulated college credit. **PRE:** Algebra I (or equivalent). Student fees: Exam fees- $160, Materials- $200, Uniforms- $65

FOUNDATION OF MEDICINE AND HEALTH SCIENCE

0100301 1 Credit  Grade 11
This course provides students with an overview of the therapeutic, diagnostic, environmental and information systems of the healthcare industry. Students will begin to prepare for a medical or health science career by developing a broad understanding of the cluster and pathways in the Health and Biosciences Cluster. Students will learn about ethical and legal responsibilities, as well as the history and economics of healthcare. Students will engage in processes and procedures that are used in the delivery of essential healthcare services. As students learn to use medical terminology within a variety of medical and healthcare environments, they will develop the Skills for Success, academic, and technical skills necessary to function as a health care professional.

STRUCTURE AND FUNCTION OF THE HUMAN BODY

0100302 2 Credits  Grade 11
Students in this course study the structure and functions of the human body, including cellular biology and histology. Systematic study involves homeostatic mechanisms of the integumentary, skeletal, muscular, circulatory, nervous systems and special senses. Students will investigate the body’s responses to the external environment, maintenance of homeostasis, electrical interactions, transport systems, and energy processes. Students will conduct laboratory investigations, use scientific methods during investigations to solve problems and make informed decisions. Students will learn medical terminology related to body systems.

CERTIFIED NURSING ASSISTANT

0100402 2 Credits  Grade 12
Students participate in classroom, lab-based, and clinical experiences that prepare them for employment in the acute or long-term care facilities. Students will gain knowledge of medical terms, nursing practices, and the skills necessary to pass the required Certified Nursing Assistant/Geriatric Nursing Assistant examinations. Students will complete the required theory hours set forth by the Maryland Board of Nursing, will understand the role of the CNA, practice infection control, demonstrate how to safely assist patients with mobility and positioning, effectively demonstrate patient hygiene techniques, accurate data collection, understand legal and ethical considerations of being a CNA, and demonstrate competencies in order to pass the written and practical exams to become a CNA/GNA.

CLINICAL INTERNSHIP COURSE

0100401 1 Credit  Grade 12
This course is designed to give students supervised practical application of previously studied theory. Students must complete 40 hours of skilled nursing experience at a local long term care facility as mandated for certification through the Maryland Board of Nursing. Parents/guardians/students are responsible for transportation to and from the clinical site. Students are required to have a physical exam completed by the beginning of their junior year. In addition, they are required to show proof of the varicella vaccination and the Hepatitis B vaccinations. Prior to clinical, senior year students will be required to obtain a PPD test and flu vaccine. Federal and State background checks are required for certification by Maryland Board of Nursing. Finger-printing will be completed on site at the School of Technology. Students earning a grade of B or higher in all four courses of the CNA/GNA program may receive articulated college credit.

ACADEMY OF HEALTH PROFESSIONS: CERTIFIED CLINICAL MEDICAL ASSISTANT PROGRAM

Students are to provide the following: stethoscope, blood pressure cuff, and a watch with a sweep second hand. Students earning a B or higher and qualifying end of course assessment scores in all the courses within the program, may qualify for articulated college credit. **PRE:** Algebra I (or equivalent). Student fees: Exam fees- $180, Materials- $280, Uniforms- $100

FOUNDATION OF MEDICINE AND HEALTH SCIENCE

0100301 1 Credit  Grade 11
This course provides students with an overview of the therapeutic, diagnostic, environmental and information systems of the healthcare industry. Students will begin to prepare for a medical or health science career by developing a broad
AGRICULTURAL SCIENCES

Many different sciences are applied to this program-biology, animal husbandry, ecology, biotechnology, soil and environmental sciences. Students earning a B or higher in all the courses within the program may qualify for articulated college credit. Student fees: Materials- $65, Uniforms-$145.

AGRICULTURE, FOOD, AND NATURAL RESOURCES (AFNR)

0113301 1 Credit Grade 11

This course will introduce students to the world of agriculture, the pathways they may pursue, and the science, mathematics, reading and writing components they will use throughout the program. Students in the course will experience exciting “hands-on” activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, and natural resources. While learning about the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning.

PRINCIPLES OF AGRICULTURAL SCIENCE-ANIMAL (ASA)

0113502 2 Credits Grade 11

This course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in animal science. Students will participate in hands-on projects and activities to recognize the characteristics of animal science and participate in projects and problems similar to those in animal science specialists, such as veterinarians, zoologists, livestock producers, or industry personnel in their respective careers. Students will continue to build their skills to investigate, conduct experiments, and document projects that solve real life problems. Students will communicate their solutions through reports and presentations.

ANIMAL AND PLANT BIOTECHNOLOGY

0113601 1 Credit Grade 12

This specialization course is designed to increase student understanding related to biotechnology concepts. Students will complete hands-on activities, projects, and problems designed to build content knowledge and technical skills in the field of biotechnology. Students are expected to become proficient at projects involving micropipetting, bacterial cultures and transformations, electrophoresis, and polymerase chain reaction. Research and experimental design will be highlighted as students develop and conduct industry appropriate investigations. In addition, students will understand the connections between the course and the FFA components that are important for the development of an informed agricultural education. 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.

HONORS AGRICULTURE, RESEARCH, AND DEVELOPMENT CAPSTONE

0113602 2 Credits Grade 12

In this course, students will apply the methods and knowledge learned from the previous Agricultural Sciences courses to synthesize their own research project to further expand their understanding and knowledge surrounding a specific problem. Students will identify a problem, develop and implement research procedures, document the research, analyze the resulting data, and present their findings and recommendations through a written report, a visual display, and an oral presentation. Students that complete the student-directed research project will be eligible to apply for and earn three transcripted credits from the Institute of Applied Agriculture at the University of Maryland.
Students earning a B or higher in all the courses within the program may qualify for articulated college credit. **PRE:** Algebra I. Student fees: Exam fees-$120, Materials-$80, Uniforms-$100

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**BASIC COOKING PRINCIPLES**

0106501  1 Credit  Grade 11
This course is the introduction to the fundamental concepts and techniques in the profession of culinary arts. It provides hands-on clinical experience through school-based enterprises giving students the opportunity to develop the technical skills required in future culinary and baking courses as well as the foodservice 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. Students participate in demonstrations and group exercises to supplement their development of technical skills and knowledge. Students will be required to take 3 certification tests. Students must pass both a written test and a performance assessment in order to become American Culinary Federation certified. Students will also take the ServSafe certification exam. Students will complete catering jobs for various customers.

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**INTRODUCTION TO PROFESSIONAL COOKING**

0106502  2 Credits  Grade 11
This course is the second half of the introduction to the fundamental concepts and techniques in the profession of culinary arts. It provides hands-on clinical experience through school-based enterprises, giving the students the opportunity to develop the technical skills required in future culinary and baking courses as well as the foodservice 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. Students participate in demonstrations and lab exercises to supplement their development of technical skills and knowledge. Students will complete catering jobs for various customers.

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**PROFESSIONAL COOKING**

0106503  3 Credits  Grade 12
This course continues to build on the foundation concepts and techniques from the Culinary Basics course. Students will be instructed on the 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.
and diagnosis including supplemental restraint system service are included. This course covers the fundamentals of short/long-arm, and strut suspensions, including: caster, camber, thrust angle, toe-in, steering axis inclination, including angle, toe-out on turns, and how they apply to steering, suspension, and 4-wheel alignment. Students learn strategy-based diagnostic routines to help interpret and verify customer concerns and proper operation and to perform tests and inspections to determine the causes and make corrections related to suspension/steering/wheel systems and alignment.

**MLR POWERTRAIN & ENGINE REPAIR/PERFORMANCE**
0108403 3 Credits Grade 12
This course is designed to teach the principles of automotive engine operation and NATEF MLR level service. It builds on the essential laws of physics, thermodynamics, and chemical reactions and how these principles apply to the operation of engine systems. It also covers general engine design and operation, cylinder head/valve train, cylinder block, lubrication at the NATEF MLR level based on the approved task list. Through the inspection, testing, or measurement-of-components process, the student is taught to apply this knowledge to determine needed repairs and correctly repair a vehicle.

**CAREER BASED LEARNING**
Students earning a B or higher in all the courses within the program may qualify for articulated college credit. Student fees: Exams- $30, Uniforms $50

**CAREER RESEARCH AND DEVELOPMENT**
01122002 2 Credits Grade 11
In this course students are given a variety of career-related assessments to help them become aware of their career preferences. Data from these assessments will assist students in creating a “self-study” from which they can begin to formulate education and career goals. While students research careers using Maryland’s career pathways and pathways as the framework for exploring technical and educational choices, they will demonstrate an understanding of how accurate, current and unbiased labor market information is necessary for successful career planning and management. In addition, students will be introduced to basic concepts of financial literacy to help them manage their personal finances. Course content will integrate the development of student’s competency in business writing, as well as, the Skills for Success (communication, learning, interpersonal, technology, and critical thinking). Students will also be required to prepare for and participate in the employment interview process.

**CAREER DEVELOPMENT, PREPARATION AND TRANSITION**
0122101 1 Credit Grade 11
In this course students will continue the self-assessment and career awareness process. In addition, students will focus on career preparation and will get ready to transition to a formal, supervised WBL experience, as well as, refine their plan for employment, education, and training beyond high school. Students will manage their career experiences and educational choices for their future by incorporating employment, education and training goals, building financial literacy skills, and integrating the Maryland’s Skills for Success. Students continue building and strengthening their career portfolio to demonstrate proficiencies in workplace readiness, personal financial management, personal growth and development, and employment experiences. The portfolio will serve as part of the student’s end-of-program assessment/culminating project.

**WORK-BASED LEARNING (WBL) EXPERIENCE**
0124103 3 Credits Grade 12
In this senior year course, students must have full time internship/work placement to attend in which they must accumulate a minimum of 270 hours on the job. The hours will be logged in cooperation with the instructor and the employer. Students must have consistent and reliable transportation to enable them to participate in their internship/work placement. The work placement is guided by a formal WBL agreement developed among the student, parent, instructor, and employer. The student work plan identifies the appropriate competencies, duties, tasks and outcomes in academic, technical, and workplace readiness areas that apply directly to the students’ goals for specific work-related placement. Continuous supervision and regular communication among the student, employer, and the instructor will provide students with feedback and evaluation results from their WBL placements. In addition, students will formulate a process for reflection and evaluation of their own skill development.

**CONSTRUCTION TRADES**

**FOUNDATION OF BUILDING AND CONSTRUCTION TECHNOLOGY**
01000101 1 Credit Grade 11
This course serves as the foundation and basis for all construction skills. The NCCER (National Center for Construction Education and Research) Core Curriculum is necessary for students to complete in order to move forward to the next level of the program. The course is designed to correlate to the modules of the NCCER national standards and related work-based learning opportunities. The modules are designed to have an approximate amount of hours of instruction and then have hours dedicated to the “hands-on” application of those necessary skills and concepts. This organization of instruction and hands-on is to help reinforce and extend learning. Students must pass the module assessments for the Construction Core to be entered into the NCCER’s National Registry. The National Registry provides nationally recognized certification in the industry.

**CARPENTRY 1**
0103502 2 Credits Grade 11
In this course, students will demonstrate mastery of carpentry specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria.
Students will take a practical examination and will complete a performance task on each module based on the following topics. Building material, fasteners, and adhesives; hand and power tools; introduction to construction drawings, specifications, and layout; floor systems; wall systems; ceiling joist and roofing framing; introduction to the building envelope systems; and basic stair layout. Once students complete the module exams the results will be entered into the NCCER National Registry.

**CARPENTRY 2**

0103903  3 Credits  Grade 12

In this course students will demonstrate mastery of carpentry specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and will complete a performance task on each module based on the following topics. 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. Once students complete the module exams and performance tasks the results will be entered into the NCCER National Registry. The skill set from this program may lead to various opportunities in the construction industry. Additionally, students in this program may be involved in the house building project.

**COSMETOLOGY**

**PRE:** Algebra I. **REC:** Foundations of Art. **Student fees:** Exams- $80, Materials-$620, Uniforms-$32. **L/C**

**THE PRINCIPLES AND PRACTICES OF COSMETOLOGY**

0105103  3 Credits  Grade 11

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. Essential to the field of cosmetology is also the understanding of effective communication skills, demonstration of effective human relations in a professional setting, as well as proper safety, and infection control procedures. This course requires 500 hours of instruction.

**ADVANCED COSMETOLOGY: THEORY AND APPLICATION**

0105303  3 Credits  Grade 11

This course allows students to develop and apply the techniques used in the field of cosmetology. Some techniques used are how to demonstrate and apply knowledge and skills acquired during in-school salon work based learning experiences; knowledge and demonstration of various hair coloring and lightening techniques; thermal hair curl, press, and style; application of artificial nail enhancements; demonstration and explain different types of hair removal techniques. Students will apply to the foundation knowledge of anatomy, physiology, chemistry and how it relates to the practice of cosmetology. These skill sets are continuously updated with academic, technical and workplace skills through salon applications. Requirements for this course are 500 hours of instruction. Students must complete the 1,000 hours needed to be eligible to participate in a required work based learning experience. All students are required to participate in a minimum of 100 hour worked based learning experience during the summer.

**MASTERY OF COSMETOLOGY**

0105403  3 Credits  Grade 12

This course provides students with the opportunity to further refine and apply skills that support all aspects of the cosmetology industry, and assists in preparing students to obtain employment in the field of cosmetology. Classroom and practical training emphasize academic, technical, and workplace skills through salon based application. To receive course credit, students must complete 1,500 hours total and take the Maryland State Board of Cosmetology examination. Successful completion of this course qualifies a student for science credit in Applied Science/Cosmetology. **PRE:** Principles and Practice of Cosmetology and Advanced Cosmetology: Theory and Application. ($80 for required state licensing exam)

**APPLIED SCIENCE/COSMETOLOGY**

0101101  1 Credit  Grade 12

This credit fulfills one of the three science credits required for graduation and is granted as a result of studying anatomy, physiology, chemistry. Credit will be awarded to students who successfully complete Mastery of Cosmetology.

**DIESEL TECHNICIAN**

Students earning a B or higher in all the courses within the program may qualify for articulated college credit. **PRE:** Algebra I. **Student fees:** Exams-$60, Materials-$150, Uniforms-$75. **LC**

**MEDIUM/HEAVY TRUCK: SUSPENSION & STEERING, and BRAKES**

0102401  1 Credit  Grade 11

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

**MEDIUM/HEAVY TRUCK: ELECTRICAL/ELECTRONIC SYSTEMS**

0102402  2 Credits  Grade 11

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

**MEDIUM/HEAVY TRUCK: DIESEL AND PREVENTATIVE MAINTENANCE**

**0102403**  3 Credits  Grade 12

This course provides the student with the knowledge and skills necessary to past the NATEF/ASE Medium/Heavy Truck Technician Exams for Diesel Engines and Preventative Maintenance and immediately enter a career in this area and/or attend post-secondary education and/or training. Through theory and real-world experiences, students master the concepts and the ability to identify and perform necessary diesel engine diagnosis for general engine repairs, cylinder head and valve train diagnosis and repair, engine block diagnosis, lubrication systems, cooling system, air induction and exhaust systems, fuel system and engine brake inspection and adjustment. Students also learn engine system, cab and hood, electrical/electronic and frame and chassis preventative maintenance. All of these will be done utilizing the latest techniques and applications on Class 4 through Class 8 trucks and tractors.

**ELECTRICAL TRADES**

Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. Student fees: Exams-$50, Uniforms-$250.

**FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY**

**0100101**  1 Credit  Grade 11

This course serves as the foundation and basis for all construction skills. The NCCER (National Center for Construction Education and Research) Core Curriculum is necessary for students to complete in order to move forward to the next level of the program. The course is designed to correlate to the modules of the NCCER national standards and related work-based learning opportunities. The modules are designed to have an approximate amount of hours of instruction and then have hours dedicated to the "hands-on" application of those necessary skills and concepts. This organization of instruction and hands-on application is to help reinforce and extend learning. Students must pass the module assessments for the Construction Core to be entered into the NCCER’s National Registry. The National Registry provides nationally recognized certification in the industry.

**ELECTRICAL 1**

**0108402**  2 Credits  Grade 11

In this course students will demonstrate mastery of electrical specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics. Electrical safety; introduction to electrical circuits; electrical theory; introduction to the National Electrical Code; device boxes; hand bending; raceways and fittings; conductors and cables; basic electrical construction drawings; residential electrical services; and electrical test equipment. Once students complete the module exams the results will be entered into the NCCER National Registry.

**ELECTRICAL 2**

**0108303**  3 Credits  Grade 12

In this course students will demonstrate mastery of electrical specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics. Alternating current; motors: theory and application; electrical lighting; conduit bending; pull and junction boxes; conductor installations; cable tray; conductor termination and splices; grounding and bonding; circuit breakers and fuses; and control systems and fundamental concepts. Once students complete the module exams the results will be entered into the NCCER National Registry. This program emphasizes safe wiring procedures and current National Electrical Code standards. Additionally, students in this program will be involved in the house building project.

**FIRE SCIENCE/EMERGENCY MEDICAL SERVICES**

This program is a joint venture among Cecil County Public Schools, Cecil County Firemen’s Association, Cecil County Emergency Medical Services, and Maryland Fire and Rescue Institute of the University of Maryland at College Park. PRE: Algebra I. Students must be at least 16 years of age, a member in good standing with a Cecil County fire or rescue department (or a fire company involved in a mutual aid agreement with Cecil County), and have completed a Maryland Fire and Rescue Institute Verification of Membership and medical clearance form. Students earning a B or higher in all the courses within the program may qualify for articulated college credit. Student fees: Uniforms-$100

**FIRE EMERGENCY MEDICAL TRAINING/HIGH SCHOOL CADET I**

**0119302**  1 Credit  Grade 11

This first course will include the following topics and must satisfy the minimum hours per topic which includes: Emergency Medical Technician or Emergency Responder and Fire Fighter I. Emergency Medical Technician includes the study of anatomy and physiology in a comprehensive examination of knowledge, skills and abilities required to operate as a licensed Emergency Medical Technician in the state of Maryland. Emergency Medical Responder provides the skills necessary to begin, at the emergency location, assessment and care for injured or ill patients. Upon successful completion of the subject and State and National Registry testing, the student will be Maryland State certified and be able to provide immediate medical care to critically ill or injured patients until personnel with advanced training arrive to assist. Firefighter I provides students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a firefighting team.

**FIRE EMERGENCY MEDICAL TRAINING/HIGH SCHOOL CADET II**

**0119302**  2 Credits  Grade 11

Firefighter I provides students with the knowledge and skills to safely and effectively perform basic firefighting operations as part of a fire-
HEAVY INDUSTRIAL MAINTENANCE

Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. REC: Design & CADD Tech I. Student fees: Exams-$50, Materials-$300, Uniforms-$35.

FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY

This course serves as the foundation and basis for all construction skills. The NCCER (National Center for Construction Education and Research) Core Curriculum is necessary for students to complete in order to move forward to the next level of the program. The course is designed to correlate with the modules of the NCCER national standards and related work-based learning opportunities. The modules are designed to have an approximate amount of hours of instruction and then have hours dedicated to the “hands-on” application of those necessary skills and concepts. This organization of instruction and hands-on application is to help reinforce and extend learning. Students must pass the module assessments for the Construction Core to be entered into the NCCER’s National Registry. The National Registry provides nationally recognized certification in the industry.

INDUSTRIAL MAINTENANCE 1

In this course students will demonstrate mastery of industrial maintenance specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics: Orientation to the trade; Tools of the Trade; Fasteners and Anchors; Electrical theory; GMAW Welding and Welding Safety.

INDUSTRIAL MAINTENANCE 2

In this course students will demonstrate mastery of industrial maintenance specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics: Orientation to the trade; Tools of the Trade; Fasteners and Anchors; Electrical theory; GMAW Welding and Welding Safety.

HOMELAND SECURITY & EMERGENCY PREPAREDNESS

This course introduces students to the fields of Homeland Security and Emergency Management by providing a historical background to support an understanding of the growth and development of the fields. Topics covered set the stage for further study in Criminal Justice/Law Enforcement. After presenting the historical context, the foundations course covers the organization, framework, and roles of federal, state and local governments. It also covers the phases of homeland security and some methodologies and systems that are relevant in the field. A unit is included on personal and community responsibilities. Finally, because of the growing importance of the field of cyber security, a unit on cyber security is introduced.

ADMINISTRATION OF JUSTICE I

This course introduces students to multiple aspects of law enforcement and the criminal justice system. Students explore the criminal process, forces that affect enforcement of law and the rights of citizens. Students study the history of the legal system, the development of the court system, the criminal justice process, the various external forces that impact the justice systems, the rights of citizens, and the role of ethics in the justice system. This course provides students an overview of the United States legal system and the process of criminal justice.
ADMINISTRATION OF JUSTICE II

0104902  2 Credits  Grade 12

This course focuses on law enforcement procedures, organized crime, street gangs, drug abuse, federal law enforcement agencies, the first responder role of law enforcement, corrections, the process of evidence collection and handling, and career in the justice system. The students will recognize the everyday challenges and operations of law enforcement agencies with special attention to career potential and development.

HOMELAND SECURITY CAPSTONE EXPERIENCE

0104901  1 Credit  Grade 12

This course is designed to provide students with the opportunity to extend and apply their classroom learning. Students will complete an industry mentored project. The project is a year-long research assignment focusing on a topic of the student's choice or interest. The goal is to develop a base of knowledge that serves as a platform for a solution to the topic or issue that the student has chosen. Students will present their project and be able to answer questions about their topic.

INTERACTIVE MEDIA PRODUCTION

Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. Student will need access to any type of camera or smartphone. REC: Foundations of Art. Student fees: Exam-$200, Uniforms-$25.

PRINCIPLES OF ART, MEDIA AND COMMUNICATION

0104401  1 Credit  Grade 11

This foundation 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 in this industry including: Graphic Design, Digital Media, and Interactive Media. Upon completion of the course students will be able to: develop corporate/business communication and technical writing required in the field; demonstrate media literacy skills as well as an understanding of ethics and security related to the field; understand the changing nature of the industry and learn to adapt to the changes; demonstrate organization and file management; demonstrate the fundamentals of project management; work in teams to complete a project; and give and accept constructive criticism.

INTERACTIVE MEDIA AND DESIGN LEVEL I

0104502  2 Credits  Grade 11

In this course, students' learning will focus on three pathway areas: Graphic Design, Digital Media, and Interactive Media. Emphasis will be placed on group project development, and individual portfolio development. Students will gain a foundational knowledge of the following and more. Create and edit computer-generated images for both graphic and publication design applications; demonstrate an understanding of type as a design element, including concepts of form and counterform, color, texture, contrast and movement; use industry-standard software programs; create cross-platform interactive media products incorporating text, graphics, animation, video, scripted interaction, and sound; design and use storyboards for the layout and implementation of interactive media projects; demonstrate the ability to explain the trends in copyright laws and legal issues in the use and development of media communication; select, implement and evaluate appropriate project management techniques and tools; and use the tools and skills needed to create drawings and graphics for a wide range of applications (Adobe CC).

INTERACTIVE MEDIA AND DESIGN LEVEL II

0104402  2 Credits  Grade 12

In this course students will continue their learning of the three pathway areas. Emphasis will be placed on group project development, project management, and individual portfolio development. Students will update their IMP Project Portfolio with examples of their best work. Students will advance their knowledge and skills in multimedia design and production through project planning and product development. Students will demonstrate the use of multiple tools and modalities in the production process.

HONORS INTERACTIVE MEDIA PORTFOLIO CAPSTONE

0113501  1 Credit  Grade 12

In the capstone course students will apply design, graphic and media communications, interactive technologies, and further develop project development skills to showcase a final project of their choosing. This project could be a client driven project that would satisfy or fill a client's need or want. Students will choose from a variety of skill sets they develop in earlier classes in order to showcase their ability to create and design an original product. Students will present their projects to industry partners, peers and the community.

IT NETWORKING ACADEMY (CISCO ACADEMY)

Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. Student fees: Exam-$210, Uniforms-$30.

IT ESSENTIALS

0104301  1 Credit  Grade 11

This course covers fundamental computer and career skills for entry-level IT jobs. The course includes hands-on labs that provide practical experience to prepare students for enterprise networking. Simulation tools help students hone their troubleshooting skills and practice what they learn. Students are expected to know and be able to: develop working knowledge of how computers and mobile devices operate; identify common security threats and vulnerabilities like malware, phishing, spoofing and social engineering; apply skills and procedures to install, configure, and troubleshoot computers, mobile devices, and software; and develop critical thinking and problem-solving skills using both real equipment and Cisco Packet Tracer, a network configuration simulation tool.

NDG LINUX ESSENTIALS

0104302  2 Credits  Grade 11

This course is the starting point for learning Linux skills. It is designed...
for learners who are beginning to build Linux knowledge for a career in information technology. NDG Linux Essentials is an introduction to Linux as an operating system, basic open source concepts and the basics of the Linux command line. The course is developed by experts and includes a Linux virtual machine as well as step-by-step labs which give students hands-on access to practice Linux command line concepts.

CCNA I: ROUTING AND SWITCHING-INTRODUCTION TO NETWORKS  
0105301  1 Credit  Grade 12  
This course is designed for students with basic PC usage skills. It introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. This course provides students with hands-on classroom laboratory work in current and emerging networking technology that emphasizes practical experience. The career-oriented approach to learning networking empowers students to enter employment or further education and training in the computer-networking field. Instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment.

CCNA II: ROUTING AND SWITCHING-ROUTING AND SWITCHING ESSENTIALS  
0105302  2 Credits  Grade 12  
This course provides students with practical classroom and laboratory experience in current and emerging networking technology. It describes the architecture, components, and operations of routers and switches in a small network. This course emphasizes practical applications and hands-on approach to learning networking in terms of implementation and career opportunities. Students will configure and troubleshoot routers and switches and resolve common issues with RIPv2, EIGRP, single-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations.

NATURAL RESOURCES  
Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. Student fees: Exam-$40, Uniforms-$45  

PRINCIPLES OF PLANT, ANIMAL, AND ENVIRONMENTAL SCIENCE  
0113101  1 Credit  Grade 11  
This course provides an overview of plant, animal, and environmental sciences to facilitate student choice of pathway for further study. Plant studies will include ecology, microbiology, soil science, plant anatomy/physiology and plant diseases. The environmental science portion of the course introduces students to the diverse areas of environmental resources management, its principles and practices. Environmental and plant industry careers will be explored.

FOUNDATIONS OF HORTICULTURE  
0113102  2 Credits  Grade 11  
This course provides students with foundation, knowledge and skills necessary to pursue careers in the horticulture 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 horticultural crops, products, and related services.

PLANT PRODUCTION  
0114101  1 Credit  Grade 12  
In this course students will build on prior knowledge of basic plant science. By incorporating market research and product development students will successfully plan, produce, and sell greenhouse and nursery crops. Students will expand their knowledge of plant nomenclature and plant cultural needs. 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 production cost, pricing, marketing, display and sale of plants.

LANDSCAPE DESIGN AND MANAGEMENT  
0114102  2 Credits  Grade 12  
In this course students will have the 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. Finally, students will evaluate all aspects of the design process, including costs, and incorporate sound horticultural and business practices required for entry level employment. Students have opportunity to experience hands-on activities in landscaping, greenhouse production, floral design, equipment operation, pesticides, nursery production, hydroponics, and aquaculture.

APPLIED SCIENCE/NATURAL RESOURCES  
0121101  1 Credit  Grade 12  
This credit fulfills one of the three science credits required for graduation and is granted as a result of studying and applying earth science, ecology, environmental science, biology, and chemistry concepts in the study of natural resources. Credit will be awarded to students who successfully complete The Natural Resources Program.
Students earning a B or higher in all the courses within the program may qualify for articulated college credit. **PRE:** Algebra

**I. Student fees:** Exams-$175, Materials-$187, Uniforms-$65

### FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY

**0100101** 1 Credit  Grade 11

This course serves as the foundation and basis for all construction skills. The NCCER (National Center for Construction Education and Research) Core Curriculum which is necessary for students to complete in order to move forward to the next level of the program. The course is designed to correlate to the modules of the NCCER national standards and related work-based learning opportunities. The modules are designed to have an approximate amount of hours of instruction and then have hours dedicated to the “hands-on” application of those necessary skills and concepts. This organization of instruction and hands-on application is to help reinforce and extend learning. Students must pass the module assessments for the Construction Core to be entered into the NCCER’s National Registry. The National Registry provides nationally recognized certification in the industry.

### PLUMBING/HVAC TECHNOLOGY

**01115102** 2 Credits  Grade 11

In this course students will demonstrate mastery of plumbing/hvac specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics. Introduction to plumbing and hvac; plumbing safety; tools of plumbing; plumbing and hvac math; introduction to plumbing drawings; plastic pipe and fittings; copper tube and fittings; cast-iron pipe and fittings; steel pipe fittings; introduction to plumbing fixtures; introduction to drain, waste, and vent; introduction to water distribution systems; basic electricity; introduction to heating; introduction to cooling; basic copper and plastic piping practices; soldering and brazing; and basic carbon steel piping practices.

### HONORS HUMAN BODY SYSTEMS WITH LAB

**0116001** 1 Credit  Grades 10-11  (PHS)

**0116002** 2 Credits  Grades 11  (CCST)

The human body is a complex system requiring care and maintenance. This course engages students in the study of basic human physiology, especially in relationship to human health. Students use a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will study the major body systems; their organs and functions. They will utilize dissections and Manikin® clay builds to deepen their understanding. **PRE:** Principles of Biomedical Sciences

### HONORS MEDICAL INTERVENTION

**0119001** 1 Credit  Grades 11-12

Medical Interventions (MI) allows students to investigate the variety of methods involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. The course explores how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present, and future of biomedical science. Lifestyle choices and preventive measures are emphasized throughout the
HONORS BIOMEDICAL INNOVATIONS WITH LAB
0118001  1 Credit  Grades 11-12  (PHS)
0117002  2 Credits  Grade 12  (CCST)
In this capstone course, students design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They 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 audience, which may include representatives from the local healthcare, business community, or the school’s PLTW partnership team.

PROJECT LEAD THE WAY®
PRE-ENGINEERING
Pre: Student must have completed the Pre-Engineering classes at the home school before applying to this program. See pg.60. Student fees: Uniforms-$125

HONORS DIGITAL ELECTRONICS (DE)
0156301  1 Credit  Grades 11
This course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. Students study the application of electronic logic circuits and devices, and apply Boolean logic to the solution of problems. Using Circuit Maker, the industry standard, students test and analyze simple and complex digital circuitry. Students design circuits, export their designs to a printed circuit auto routing program that generates printed circuit boards, and construct the design using chips and other components.

HONORS AEROSPACE ENGINEERING
0155301  1 Credit  Grades 11
This course introduces student to the world of aeronautics, flight, and engineering. Students in this course will apply scientific and engineering concepts to design materials and processes that directly measure, repair, improve, and extend systems in different environments. The course deepens the skills and knowledge of an engineering student within the context of atmospheric and space flight. Students explore the fundamentals of flight in air and space as they bring the concepts to life by designing and testing components related to flight, such as airfoil, propulsion system, and a rocket. Students apply aerospace concepts to alternative applications such as a wind turbine and parachute. Students simulate a progression of operations to explore a planet, including creating a map of the terrain with a model satellite and using the map to execute a mission using an autonomous robot.

HONORS CIVIL ENGINEERING & ARCHITECTURE
0154301  1 Credit  Grades 11-12
This course provides an overview of the fields of civil engineering and architecture while emphasizing the inter-relationship and dependence of both fields. Students use state-of-the-art software to solve real-world problems and communicate solutions to hands-on projects and activities. This course covers topics such as the roles of civil engineers and architects, project planning, site planning, and building design. PRE: Introduction to Engineering Design, Principles of Engineering

HONORS COMPUTER INTEGRATED MANUFACTURING (CIM)
0158301  1 Credit  Grade 12
This course teaches the fundamentals of computer manufacturing technology. It builds on the solid-modeling skills developed in previous courses of the program. Students use 3-D computer software to solve design problems. They assess their solutions through mass propriety analysis (the relationship of design, function and materials), modify their designs, and use prototyping equipment to produce 3-D models. Students will use 3-D modeling software; understand the operating procedures and programming capabilities of machine tools; Computer Numerical Control (CNC) Equipment; convert computer-generated geometry into a program to direct the operation of CNC machine tools; program robots to handle materials in assembly-line operations (Robotics); and work in teams to design manufacturing work cells and tabletop factories to solve complex problems that arise in integrating multiple pieces of computer-controlled equipment.

HONORS ENGINEERING DESIGN & DEVELOPMENT
0157301  1 Credit  Grade 12
This course enables students to apply what they have learned in academic and pre-engineering courses as they complete a challenging self-directed project. Students work in teams to design and build solutions to authentic engineering problems. An engineer from the program’s partnership team mentors each student or team. At the end of the course, individuals or teams present their research paper and defend their projects to a panel of engineers, business leaders, and engineering college educators for professional review and feedback. This course equips students with the independent study skills they will need in post-secondary education, and careers in engineering and engineering technology.

TEACHER ACADEMY OF MARYLAND
Students earning a B or higher in all the courses within the program may qualify for articulated college credit. PRE: Algebra I. Junior fees: Materials-$15, Uniforms-$115, Senior fee-Exam-$55. Professional dress is expected (no jeans, shorts) on a daily basis.

HUMAN GROWTH AND DEVELOPMENT THROUGH ADOLESCENCE
0162301  1 Credit  Grade 11
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
0100702 2 Credits Grade 11
This course focuses on the profession of teaching – its history, purposes, issues, ethics, laws and regulations, roles, and qualifications. Emphasis is placed on identifying the current, historical, philosophical and social perspectives of American education, including trends and issues. Students will explore major approaches to human learning. Students will participate in guided observations and field experiences in multiple settings to help them assess their personal interest in pursuing careers in this field and to identify effective learning environments. Students will continue to develop the components of a working portfolio to be assembled upon completion of the internship.

FOUNDATIONS OF CURRICULUM AND INSTRUCTION
0100902 2 Credits Grade 12
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.

HONORS EDUCATION ACADEMY INTERNSHIP
0100901 1 Credit Grade 12
The internship is the culminating course of the program. Students will have an opportunity to integrate content and pedagogical knowledge in an educational area of interest. They will have an opportunity to extend and apply their knowledge about teaching in a classroom setting under the supervision of a mentor teacher. Students will take the Para Pro-Exam in the spring following their internship. The students will complete their working portfolio and present it for critique. Students will create a Pre-Professional Portfolio during both years of TAM and senior students will complete an internship in a CCPS school.

TRADE EXPERIENCE
0120202 2 Credits Grade 12
This internship opportunity is for seniors who have completed the first half of their program and are eligible to complete this on B days. It is the student’s responsibility to obtain employment/internship directly related to his/her completed program for a minimum of 15 hours bi-weekly. Supervision is provided by the career facilitator. Students will receive a letter grade for this course based upon the number of weekly hours completed, weekly reflection journals, and monthly evaluations from the employer.

WELDING & METALS TECHNOLOGY
PRE: Algebra I. Student fees: Exam-$100, Materials-$250, Uniforms-$175

FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY
0100101 1 Credit Grade 11
This course serves as the foundation and basis for all construction skills. The NCCER (National Center for Construction Education and Research) Core Curriculum which is necessary for students to complete in order to move forward to the next level of the program. The course is designed to correlate to the modules of the NCCER national standards and related work-based learning opportunities. The modules are designed to have an approximate amount of hours of instruction and then have hours dedicated to the “hands-on” application of those necessary skills and concepts. This organization of instruction and hands-on application is to help reinforce and extend learning. Students must pass the module assessments for the Construction Core to be entered into the NCCER’s National Registry. The National Registry provides nationally recognized certification in the industry.

WELDING 1
0116102 2 Credits Grade 11
In this course students will demonstrate mastery of welding specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics. Welding safety; oxyfuel cutting; plasma arc cutting; air-carbon arc cutting and gouging; base metal preparation; weld quality; SMAW equipment and setup; SMAW electrodes; SMAW beads and fillet welds; joint fit-up and alignment; SMAW groove welds and backing; and SMAW-open-root groove welds-plate. Identification of welding equipment, metals, metal shapes, joint design, technical drawing reading, related math, and technical reading are included.

WELDING 2
0116303 3 Credits Grade 12
In this course students will demonstrate mastery of welding specific topics and skills through instruction and hands-on application. Each module has dedicated instructional hours and hands-on hour criteria. Students will take a practical examination and a performance exam on each module based on the following topics. Students will continue with content started in Welding 1 and build on those skills to include, but not limited to: Mechanical properties of metals, pre-heat and post weld heat treatment, welding symbols, SMAW groove welds with backing and SMAW open-root groove welds. Identification of welding equipment, metals, metal shapes, joint design, technical drawing reading, related math, and technical reading are included. Students are also taught metal fabrication within the program. Students are introduced to GMAW, FCAN, and GTAW welding processes.
AVID Elective provides academic, social and emotional support to help students succeed in rigorous high school courses and to prepare for and succeed in college. Students participate in activities that familiarize them with college experiences and expectations. This program targets students who have the desire to attend college but may need extra support in the college preparation and application processes. Students must apply to and be accepted in the AVID Elective Course.

**AP COMPUTER SCIENCE A**

0146302  2 Credits  Grades 11-12

This course emphasizes object-oriented programming methodology with an emphasis on problem solving and algorithm development. It also includes the study of data structures and abstraction. Maryland Virtual Learning Opportunities is offering this course using course content from Florida Virtual School that has been modified to meet Maryland State Department of Education requirements. Students play the role of a “Survivor” while they work their way through the course material. Java is the computer language used. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) **PRE:** Algebra II  **REC:** Oracle I

**AP COMPUTER SCIENCE PRINCIPLES**

0146402  2 Credits  Grades 10-12

Students work in teams to develop computational thinking and solve problems. The course does not aim to teach mastery of a single programming language but instead aims to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students’ awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. Each unit focuses on one or more computationally intensive career paths. The course also aims to engage students to consider issues raised by the present and future societal impact of computing. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board Exam administered at the conclusion of the course. (AP exam fee is approximately $95)

**ENGLISH LANGUAGE ARTS**

CCPS English courses are grouped according to grade level and academic challenge. All courses are aligned to Maryland College and Career Readiness Standards and meet state requirements for graduation. In each course, regardless of academic challenge, students read a balance of high interest contemporary text and classical works of fiction and nonfiction while writing emphasizes text-based argumentation, narration, and analysis.

In addition to the required language arts classes, a selection of electives that complements those core classes are available for students to explore specific areas of study (e.g., Honors College Writing, The Art of Expression, World Mythology, etc.) Availability of these elective courses is dependent on schedule requests and staff allocation.

**ENGLISH 9**

0200301  1 Credit  Grade 9
0200311  1 Credit  Grade 9

Aligned to the 9-10 grade band of the Maryland College and Career Ready Standards, this course requires students to demonstrate proficiency in these standards as they apply to reading, writing, speaking, listening, and using language. As students explore short and extended pieces of literature, they are expected to transfer their understandings of author purpose and choice to make deliberate decisions in their own writing. Assignments in this class may expose students to mature and sensitive texts.

**HONORS ENGLISH 9**

0201301  1 Credit  Grade 9
0201311  1 Credit  Grade 9

Aligned to the 9-10 grade band of the Maryland College and Career Ready Standards, this course requires students to demonstrate proficiency in these standards as they apply to reading, writing, speaking, listening, and using language. As students explore short and extended pieces of literature, they are expected to transfer their understandings of author purpose and choice to make deliberate decisions in their own writing. Required reading outside the classroom is essential to success in this course. Due to the advanced rigor of this course, students will likely be exposed to mature and sensitive issues through the literature studied.

**ENGLISH 10**

0202301  1 Credit  Grade 10
0202311  1 Credit  Grade 10

This course enriches the language arts, inquiry, and analysis skills developed in English 9, guiding students toward mastery of the 9-10 grade band standards. Text and language study emphasize vocabulary acquisition, grammar as an element of style, critical thinking, discussion, and the explication and synthesis of authors’ ideas in student writing. Students continue to develop writing products across genres that are informed by Maryland’s College and Career Readiness Standards. Deployed through sets of various texts, the course explores classic and
contemporary literature as well as pertinent non-fiction. Students' continued mastery of SAT skills is also a goal of the program.

HONORS ENGLISH 10
0203301 1 Credit Grade 10
This course enriches the language arts, inquiry, and analysis skills developed in English 9, guiding students toward mastery of the 9-10 grade band standards. This course continues an intensive study of literature, non-fiction, and composition that will prepare students for success in Advanced Placement English courses and on the SAT. Students will come to master literary forms, rhetorical devices, methods of critical analysis, vocabulary skills, and further develop their writing. Discussion, collaboration, and presentation skills are vital components of the curriculum. Students will continue to expand their knowledge of challenging classic and modern texts from a variety of genres, including poetry, the novel, the short story, non-fiction, and drama.

ENGLISH 11
0204301 1 Credit Grade 11
0204311 1 Credit Grade 11
As a result of closely reading key passages from these sources, students will understand how the documents have affected American identity and continue to shape contemporary American literature and culture. Assignments in this class may expose students to mature and sensitive texts.

HONORS ENGLISH 11
0205301 1 Credit Grade 11
Aligned to the 11-12 grade band of the Maryland College and Career-Ready Standards, this course requires students to evaluate the reasoning of the documents that shaped America. (e.g., The Declaration of Independence, The Constitution, Common Sense, etc.). As a result of closely reading key passages from these sources, students will understand how the documents affect literature and identity throughout American history. Required reading and extensive writing outside of the classroom is essential to success in this course. Due to the advanced rigor of this course, students will likely be exposed to mature and sensitive issues through the literature studied.

ENGLISH 11 BRIDGE
0208301 1 Credit Grade 11-12
This course is designed for students who did not meet the Maryland Comprehensive Assessment Program. Components of the bridge project, which include literary analysis and narrative writing, are integrated within the English 11 curriculum to ensure that students receive meaningful remediation without being deprived of rigorous, grade level instruction.

ENGLISH 12
0206301 1 Credit Grade 12
0206311 1 Credit Grade 12
Aligned to the 11-12 grade band of the Maryland College and Career-Ready Standards, this course requires students to fully integrate their learning experiences as they transition to post-secondary school or the workforce. Students will engage in authentic research and grapple with sophisticated literary themes as they hone the skills they will need for success in college or careers. They are expected to transfer those understandings to enhance the value of their writing. Assignments in this class may expose students to mature and sensitive issues.

HONORS ENGLISH 12
0207301 1 Credit Grade 12
Aligned to the 11-12 grade band of the Maryland College and Career-Ready Standards, this course requires students to fully integrate their learning experiences as they transition to post-secondary school or the workforce. Students will engage in authentic research and grapple with sophisticated literary themes as they hone the skills they will need for success in college or careers. They are expected to transfer those understandings to enhance the value of their own writing. Required reading and extensive writing outside of the classroom is essential to success in this course. Due to the advanced rigor of this course, students will likely be exposed to mature and sensitive issues through the literature studied.

AP LANGUAGE & COMPOSITION
0211302 2 Credits Grades 11-12
This course focuses on American literature with an emphasis on non-fiction and some fiction through an accelerated and extended curriculum to accomplish college-level writing assignments and literary analysis for preparation to take the AP Language and Composition exam. Grammar, usage, and conventions are taught as a component of the course and within the context of authentic writing experiences. Outside class reading and writing assignments with follow up requirements may occur. Students and parents are advised that required assignments may involve reading material that is sophisticated and mature in nature. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. The purchase of some support material is optional. (AP exam fee is approximately $95.)

AP LITERATURE & COMPOSITION
0213302 2 Credits Grades 11-12
This course focuses on British literature through an accelerated and extended curriculum to accomplish college-level writing assignments and literary analysis in preparation for the AP Literature and Composition exam. Grammar, usage, and conventions are taught as a component of the course and within the context of authentic writing experiences. Outside class reading and writing assignments with follow up requirements may occur. Students and parents are advised that required assignments may involve reading material that is sophisticated and mature in nature. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. The purchase of some support material is optional. (AP exam fee is approximately $95.)

COLLEGE AND CAREER LITERACY
0214315 1/2 Credit Grade12
This hybrid course utilizes a disciplinary literacy approach that teaches students strategies for reading and understanding complex texts in different subject areas. Therefore, students will
not only explore literature and literary non-fiction but will grapple with scientific and historical texts as well. Students will develop, defend, and demonstrate understanding of ideas in various formats, e.g. essays, brochures, digital presentations, etc.

HONORS COLLEGE WRITING
0219401 1 Credit Grades 10-12
The primary objective of this course is to provide a research-based focus for students to hone skills that will lead to post-secondary success. The course fosters a sense of accountability within students to research and advocate particular correlations between two factors that requires advanced inductive reasoning skills and logic. The following are a few of the course methods:
• Research-based inquiries and cross-referencing material
• Research-oriented projects
• Understanding the importance of credibility within research
In this research-based course, students delve into the dynamic of thesis development and support, with specialized areas of focus that employ twenty-first century skills such as collaboration, critical thinking, work ethic, global awareness, and technological literacy.

MEDIA PUBLICATIONS
0228305 1/2 Credit Grades 10-12
0228301 1 Credit Grades 10-12
Media Publications is about understanding how systems function to create and distribute media with the intention of conveying a message. Everything within our global community is dependent on something else. Within the context of Media, this may apply to a studio system (consisting of cameras, lighting, audio equipment) which works toward the objective of a broadcasted message. A balance of technological experience and abstract conceptual understanding dominates this course offering. As a result, students will be expected to represent their ideas metaphorically. To begin generating this level of understanding, case studies will serve as primary course resources. PRE: Completion of application and letters of recommendation RC

SAT REVIEW
0230005 1/2 Credit Grades 10-11
0230001 1 Credit Grades 10-11
SAT: VERBAL REVIEW
0231304 1/4 Credit Grades 10-11
0231305 1/2 Credit Grades 10-11
SAT: MATHEMATICS REVIEW
0732304 1/4 Credit Grades 10-11
0732305 1/2 Credit Grades 10-11
This course helps students prepare to take the SAT Reasoning exam. Students are involved with a review of vocabulary and test-taking skills, as well as mathematical, critical reading, and writing concepts. Support materials may need to be purchased. REC: Geometry RC

SHAKESPEARE
0226005 1/2 Credit Grades 11, 12
0226001 1 Credit Grades 11, 12
This course offers Shakespearean plays to illustrate the development of the playwright from his early comedies, through the historical plays and tragedies, to his final semi-comedies.

SPEECH/DISCUSISON & DEBATE
0221305 1/2 Credit Grades 10-12
0221301 1 Credit Grades 10-12
Speech, Discussion, and Debate is about developing a professional speaking persona and personal credibility, determining source credibility, applying effective research, using logic, and shaping communication to develop our global society. Throughout the process, foundational ideas surrounding communication are discussed and made to flourish. Most of all, students should feel free to speak their minds and enjoy communication. Students’ initial speaking experiences along with their research will be refined into the argumentation practice which they will later review (through video experience) and critique in order to perfect their own skills. They will also use research skills from the first two modules to create a counterargument against themselves; this will provide them with an in-depth look at both sides of an argument.

THE ART OF EXPRESSION I
0227305 1/2 Credit Grades 10-12
0227301 1 Credit Grades 10-12
The Art of Expression is about identifying and analyzing why artists (poet, novelist, sculptor, etc.) created their work and the impact those choices have on society. The overarching goal of these units is to build understanding in how perspective, interaction, cycles, and culture influence art. In addition to discovering and analyzing these relationships, students will create several original pieces and will also complete writing tasks that examine how artistic repetition affects the creative process. Additionally, this course will expose students to the cycles of art creation, stereotypes, and the influences of art and trends on society.

THE ART OF EXPRESSION II: FILM STUDY
0235101 1 Credit Grades 11-12
The Art of Expression II: Film Study is an elective course and focuses on understanding movies as visual narratives. Students will analyze and study language systems of film (such as photography, editing, sound, acting, plot and plot-writing, etc). By studying these tools used by filmmakers, students will be able to better understand how movies are constructed and develop the criteria necessary to write and create films.

WORLD MYTHOLOGY
0223305 1/2 Credit Grades 10-12
0223301 1 Credit Grades 10-12
World Mythology is the study of a collection of myths that belong to people and addresses their origin, history, deities, ancestors, and heroes. The study of mythology is designed to reveal core values embedded in a particular society which will require students to study multiple cultures, faiths, and beliefs. The underlying goal of this course is for students to uncover the timeless nature of human experience. This course should also serve to allow students to acquire knowledge and build and analyze connections between various cultures throughout time and space. This discovery will allow
### FOUNDATIONS OF ART

0400401  
1 Credit  
Grades 9-12  
This course provides students with a comprehensive background in the arts with emphasis in two- and three-dimensional design. This course is recommended, but not limited, to those who plan to pursue advanced art courses.

### CREATIVE CRAFTS

0404005  
1/2 Credit  
Grades 9-12  
This course helps students develop creative crafts, techniques, and processes which may include fiber arts, stained glass, sculptures, general crafts, and seasonal crafts. ($35 for materials)

0404001  
1 Credit  
Grades 9-12  

### HUMANITIES

0401401  
1 Credit  
Grades 9-12  
This course focuses on explaining the experience of mankind through the fine arts and how the arts play a role in documenting the human experience. This course covers the Prehistoric through Contemporary Periods. ($15 for project materials)

### DRAWING I

0405005  
1/2 Credit  
Grades 9-12

0405001  
1 Credit  
Grades 9-12  
This course introduces students to two-dimensional design and drawing skills. Students explore a variety of drawing tools and materials. Students are also exposed to a knowledge of aesthetics, style, and the history of art related to drawing and design. ($25 for materials)  
**PRE:** Foundations of Art, Creative Crafts, portfolio evidence, or previous art teacher recommendation

### 2D & GRAPHIC DESIGN I

0408305  
1/2 Credit  
Grades 9-12  

0408301  
1 Credit  
Grades 9-12  
This course familiarizes students with various graphic and design techniques. Students study materials and processes, which may include linoleum, wood block, silk screen, computer graphics/video (when facilities permit), calligraphy, poster design, commercial package designs, etching, and found object printing. ($25 for materials)  
**PRE:** Foundations of Art, Creative Crafts, portfolio evidence, or Foundations of Art Waiver

### DRAWING/PAINTING I

0409005  
1/2 Credit  
Grades 9-12

0409001  
1 Credit  
Grades 9-12  
This course introduces students to the basic concepts and media used in drawing and painting from observation, imagination, and memory. Students may work in charcoal, pastel, watercolor, acrylic, and tempera. ($35 for materials)  
**PRE:** Foundations of Art, Creative Crafts, portfolio evidence, or Foundations of Art Waiver

### SCULPTURE & CERAMICS I

0411005  
1/2 Credit  
Grades 9-12

0411001  
1 Credit  
Grades 9-12  
This course allows students to explore three-dimensional design through the creation of art works which may include the use of clay, wood, metal, wire, paper, plaster, and other media. This course also
includes exposure to aesthetics, style, and history of art related to sculpture and ceramics. ($25 for materials) **PRE:** Foundations of Art, Creative Crafts, portfolio evidence, or Foundations of Art Waiver

**PHOTOGRAPHY I**

0412005 1/2 Credit Grades 9-12  
0412001 1 Credit Grades 9-12  
This course contains a rigorous curriculum which introduces students to the use of specialized photographic equipment including cameras, lenses, and developing processes. Students are expected to demonstrate the ability to produce acceptable two-dimensional design in the production of photographic themes using 35mm or digital photography. Students may be required to bring in their own 35mm (SLR) camera, paper and film, or a digital camera. ($25 for materials) **PRE:** Photography I or  portfolio evidence

**DRAWING II**

0413001 1 Credit Grades 10 -12  
This course concentrates on the expansion of applications of students’ previously learned skills. Students gain exposure to aesthetics and history of art as related to two-dimensional drawing/design. ($25 for materials) **PRE:** Drawing I or portfolio evidence

**2D & GRAPHIC DESIGN II**

0414301 1 Credit Grades 10-12  
This course is a continuation of 2D & Graphic Design I in which students expand upon various graphic and design techniques. Students elaborate upon techniques and processes working with linoleum, wood block, silk screen, computer graphics (where facilities permit), calligraphy, poster design, commercial package designs, etching, and found object printing. ($25 for materials) **PRE:** Photography I or 2D & Graphic Design I

**DRAWING/PAINTING II**

0416301 1 Credit Grades 10-12  
This course concentrates on the expansion and refinement of skills and techniques previously learned in Drawing/Painting I. ($25 for materials) **PRE:** Drawing/Painting I

**SCULPTURE & CERAMICS II**

0418401 1 Credit Grades 10-12  
This course concentrates on the expansion and application of the students’ skills previously learned in Sculpture & Ceramics I. The course includes an exposure to aesthetics, style, and art history related to sculpture and ceramics. ($25 for materials) **PRE:** Sculpture & Ceramics I

**PHOTOGRAPHY II**

0419401 1 Credit Grades 10-12  
This course concentrates on the expansion and application of students’ skills previously learned in Photography I. Photographs produced will demonstrate quality two-dimensional design and an understanding of photographic techniques that may include digital design software. This course is more challenging than the introductory level course and contains a rigorous curriculum. Students may be required to bring in their own 35mm (SLR) camera, paper and film, or a digital camera. ($25 for materials) **PRE:** Photography I

**SCULPTURE/CERAMICS**

0421005 1/2 Credit Grades 11-12  
0421001 1 Credit Grades 11-12

**2D & GRAPHIC DESIGN**

0472005 1/2 Credit Grades 11-12  
0472001 1 Credit Grades 11-12

**DRAWING/PAINTING**

0423605 1/2 Credit Grades 11-12  
0423601 1 Credit Grades 11-12

**DRAWING**

0424005 1/2 Credit Grades 11-12  
0424001 1 Credit Grades 11-12

**PHOTOGRAPHY**

0431005 1/2 Credit Grades 11-12  
0431001 1 Credit Grades 11-12

**AP STUDIO ART**

0473402 AP 2-D Design 2 Credits Grades 11-12  
0473502 AP 3-D Design 2 Credits Grades 11-12  
0473702 AP Drawing 2 Credits Grades 11-12  
Students choose between one of three portfolios: Drawing, 2-Dimensional Design, or 3-Dimensional Design. To earn an AP weighted high school credit, students enrolled in AP Studio Art must complete a portfolio following the guidelines set by the College Board. Purchase of some support materials is required. ($40 plus $95 for AP exam) **PRE:** Level II or portfolio evidence

**AP ART HISTORY**

0473602 2 Credits Grades 11-12  
Students participate in individual research projects and develop college level skills such as outlining, writing about art, and more. This course provides a general survey of Art History from Prehistoric to Contemporary times on a college freshman level. Focus is on different cultures and traditions, and how art changes with them. Lecture, reading, discussion, and multi-media presentation will be used. To earn an AP weighted high school credit, students enrolled in an AP course **must** take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.)

**STUDIO LEVEL III**

The Studio Level III courses listed below concentrate on the expansion and application of the students’ previously learned skills. These are advanced classes with a dominance of self-directed assignments. These courses also provide students with the opportunity to produce work for a portfolio which is usually a prerequisite for art schools. Due to the independent nature of these courses, students register on an individual basis for the existing program with recommendation of the art instructor. ($25 for materials) **PRE:** Portfolio evidence **RC**

**AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.)**
## Performing Arts

### Introduction to Dance

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Grade Levels</th>
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<tr>
<td>0440005</td>
<td>1/2</td>
<td>Grades 9-12</td>
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<tr>
<td>0440001</td>
<td>1</td>
<td>Grades 9-12</td>
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This course introduces dance to students in its many forms and cultures with an emphasis that blends theory with practical application. Creative and structured dance forms are studied.

### Honors Drama I

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<th>Course Code</th>
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<th>Grade Levels</th>
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<tr>
<td>0443002</td>
<td>2</td>
<td>Grades 11-12</td>
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This course is for students who have shown talent in the performing arts, either on stage or backstage. Students study theatre history, acting theories, critical analysis, performance/production skills, and improvisation. Students are involved in the development of full-scale theatre productions. Purchase of support materials is optional. Students earning a B or better in Honors Drama I & II may earn articulated college credit. **PRE:** Theatre or Theatre Design, portfolio evidence, and committee review.

### Honors Drama II

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<th>Course Code</th>
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<tr>
<td>0443002</td>
<td>2</td>
<td>Grade 12</td>
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</table>

This course runs concurrently with Honors Drama I with an emphasis on directing, designing, acting, acting theories, and technical theatre. Students are involved in the development of full-scale theatre productions. Purchase of support materials is optional. This course is held at RSHS and is available to students from each of the high schools. Students earning a B or better in Honors Drama I & II may earn articulated college credit. **PRE:** Honors Drama I and committee review.

### Theatre

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<tr>
<td>0445001</td>
<td>1</td>
<td>Grades 9-12</td>
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</table>

This course introduces students to the basics of theatre with an emphasis on acting and public speaking. Students may study improvisation, mime, theatre history, puppet theatre, oral interpretation, and theatrical analysis. This course emphasizes play and character analysis, scene development, aesthetic criticism, basic directing skills, theatre history, and script memorization.

### Theatre Design

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<tr>
<td>0451001</td>
<td>1</td>
<td>Grades 10-12</td>
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</table>

This course introduces students to the basics of technical theatre. The course explores fundamental design and development properties of scenery, lighting, costume, makeup, and sound. Aspects of publicity and theatre history are also included. Students may work on technical and design aspects of a real stage production. ($15) **PRE:** Teacher interview.

### Music

#### Concert Band

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<tr>
<td>0460005</td>
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<td>Grades 9-12</td>
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<tr>
<td>0460001</td>
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<td>Grades 9-12</td>
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This course is designed for students who are still developing their instrumental skills. Experiences are performance-based and will include a range of solo, small ensemble, and large ensemble repertoire both during and after the school day. Performance at school and community events are an integral part of the program and may take place beyond normal school hours. **PRE:** Musicianship levels I & II.

#### Percussion Ensemble

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<th>Course Code</th>
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<tr>
<td>0460501</td>
<td>1</td>
<td>Grades 9-12</td>
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All percussionists will enroll in this ensemble instead of band class. This is a performance based class, where students will learn performance techniques for a variety of percussion instruments, and develop an understanding of basic music theory concepts. Students perform various percussion ensemble and/or band music. The ensemble may perform in concerts, local and performance-based and will include a range of solo, small ensemble, and large ensemble repertoire both during and after the school day. Activities include multiple public performances. **PRE:** Audition/Band Director's Approval.

#### Wind Ensemble

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<tr>
<td>0466001</td>
<td>1</td>
<td>Grades 9-12</td>
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Wind Ensemble utilizes materials more technically demanding than those for Concert Band. Wind Ensemble is designed for the student of advanced ability level. Experiences are performance-based and will include a range of solo, small ensemble, and large ensemble repertoire both during and after the school day. Performances at school and community events are an integral part of the program and may take place beyond normal school hours. **PRE:** Audition/Band Director's Approval.

#### Jazz Ensemble

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<tr>
<td>0474005</td>
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<td>Grades 9-12</td>
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<tr>
<td>0474001</td>
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<td>Grades 9-12</td>
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This course helps students further their musicianship skills. Students study, prepare, and perform compositions representative of 20th century American jazz styles including swing, big band, bebop, cool jazz, fusion, and Latin jazz. Activities include concerts and performances during and beyond the school day. **PRE:** Audition/Band Director's Approval.

#### Foundations of Music

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<tr>
<td>0462001</td>
<td>1</td>
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This course is designed to build a basis of musical knowledge through the application and use of the basic elements of music, the rudiments of musical notation, instrument classification, world music, music analysis, and music history. Upon exiting the course, students are expected to have a rudimentary understanding of music.

#### Chorus

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<tr>
<td>0454005</td>
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<td>0465001</td>
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<td>Grades 9-12</td>
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This course helps students develop musicianship and an understanding of all aspects of choral production. Performance activities at school or in the community may be included.

#### Concert Choir

<table>
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<tr>
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<td>Grades 9-12</td>
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This course helps students develop musicianship and an understanding of all aspects of choral production. The concert choir performs at school and community concerts, and represents the school at choral activities. Experiences are performance-based and will include a range of solo, small ensemble, and large ensemble repertoire both during and after the school day. **PRE:** Audition/Choir director's approval.
CHAMBER ENSEMBLE
0470005 1 Credit Grades 9-12
0470001 1 Credit Grades 9-12
This course is for advanced choral musicians. Through a study of varied choral literature, this course seeks to develop and strengthen the vocal production of the advanced singer in an ensemble setting. Students develop their individual technique with focus on intonation, blend, tone, and diction. Students also study the relationship of music to history and culture. This ensemble performs for school and community concerts. PRE: Audition/Choir director’s approval RC

GUITAR I
0466005 1/2 Credit Grades 9-12
0466001 1 Credit Grades 9-12
This course offers students the basics of guitar. Students learn to read standard musical notation and play simple melodies. Students are also taught to accompany folk, traditional, and popular music in a variety of styles using basic chords in major and minor keys. Students must provide their own guitar. ($16 for materials)

GUITAR II
0475005 1/2 Credit Grades 9-12
0475001 1 Credit Grades 9-12
This course is for advanced guitar students. Through a study of varied guitar literature, this course seeks to develop and strengthen the guitar skills of the advanced guitarist. Experiences are performance-based and will include a range of solo, small ensemble, and large ensemble repertoire both during and after the school day. Students must provide their own guitar. PRE: Guitar I; students must be able to read and play standard musical notation. ($16 for materials) RC

MUSIC KEYBOARD I
0467005 1/2 Credit Grades 9-12
0467001 1 Credit Grades 9-12
This course offers students the basics of keyboard music. Students learn to read and play basic chords, note values, and rhythms. Upon completion of Music Keyboard I, students may take Music Keyboard II. Students must provide their own headphones and 1/4" adapter.

MUSIC KEYBOARD II
0471005 1/2 Credit Grades 9-12
0471001 1 Credit Grades 9-12
This course is for advanced keyboard students. Through a study of varied piano literature, this course seeks to develop and strengthen the keyboard skills of the advanced keyboardist. Students earning a B or better in Music Keyboard II may earn articulated college credit. Lab fee for workbook and Finale CD-ROM ($25) PRE: Portfolio evidence

AP MUSIC THEORY
0472302 2 Credits Grades 11-12
This course enables talented vocal and instrumental students to develop a functional knowledge and understanding of the elements of music fundamentals through reading and writing music. Students develop musicianship and musical insight, and acquire an understanding of aesthetic and technical considerations through performance of original works alone and in ensemble. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. Some support materials may be optional. (AP exam fee is approximately $95.) PRE: Teacher approval

MUSIC THEORY I
0472301 1 Credit Grades 10-12
This course offers musically talented students the opportunity to develop their own musicianship through an understanding of musical elements. Students review music fundamentals and create their own music arrangements and compositions. In order to take Music Theory I, a student must be able to pass a rudimentary music test. Lab fee for workbook and Finale CD-ROM ($25) PRE: Portfolio evidence

MUSIC THEORY II
0473301 1 Credit Grades 11-12
This course offers musically talented students the continued opportunity to develop their musical skills with additional training in writing composition, sight singing, and harmony arrangements. Students earning a B or better in Music Theory II may earn articulated college credit. Lab fee for workbook and Finale CD-ROM ($25) PRE: Portfolio evidence, Music Theory I

FOUNDATION TO DIGITAL ARTS
Credits may vary Grade 12
These courses are offered at the Cecil College (CC) Visual Communications Program (North East Campus) utilizing professional studio and lab facilities. Interested students must first meet with their respective school counselor, who will assist with reviewing the Digital Arts recommended electives that qualify for this program (see page 6). Course credits will vary based on the Digital Arts course selected. This series of courses in Digital Arts can include single or multi-course offerings. This program is intended for the the senior year. These courses provide an opportunity for students to work at the college level to reach a higher level of aesthetic and technical achievement in the digital arts. Participants may pursue Cecil College Art, VCP, and CIS courses in the following areas: Photography, Movie Making, Digital Imaging (must enroll in both DI I & DI II), Animation, Digital Illustration, Video Production and Web Design, and Modeling and Animation for Graphic Design and Video.

Students must then:
• begin the dual enrollment application process;
• arrange a meeting with Dan Krukosky (410-287-6060 x311), Director of the Visual Communications Program at Cecil College, who will evaluate their background knowledge and skills,
recommend/confirm their course selection, and provide
the necessary signature/authorization;
• register for the recommended college course; and
• complete the dual enrollment process with their school
  counselor.

CC application and tuition are required for these courses. Payment
arrangements must be made with the college prior to the beginning
of the semester. These courses will equate to 3-12 college credits
depending on the number of courses taken. PRE: Required senior
courses completed during fall semester to allow daytime attendance
at Cecil College. 

NOTE: Special tuition reduction is offered through the College
Bound Scholarship Program for the digital arts program dual
enrollment courses. Please contact your high school counselor for
specific information.

MATHEMATICS

Students must complete a minimum of one (1) mathematics
course per year and earn a minimum of four (4) mathematics
credits during grades 9-12. One credit must include a course that
meets the Maryland College and Career Readiness Standards in
both algebra and geometry.

Algebra I and Geometry meet the requirements for the Maryland
College and Career Readiness Standards. Incoming 9th grade stu-
dents may have met one or both of these requirements if they have
successfully completed Algebra I and Geometry during the middle
school; however, students must still complete one math course per
year during high school.

Topics of Mathematics is a course that currently meets the local
requirements for graduation, but does not meet the minimum course
requirements for college admission by the University System of
Maryland.

All students must pass Algebra I, which is a graduation requirement.
Incoming 9th grade students may have met this requirement if
enrolled in Algebra I in middle school. Students who have not met
the Maryland College and Career Readiness Standard by the end
of their junior year must select a math course that meets the MSDE
transition course requirement during their senior year.

The National Collegiate Athletic Association (NCAA) and some
post-secondary institutions do not accept high school credits
earned while in a middle school. In order to meet NCAA admissions
requirements and/or be eligible to participate in college athletics,
students must earn three (3) mathematics credits through Algebra
II during grades 9 through 12. The NCAA determines the courses
for which credit is awarded.

PRE-ALGEBRA
0722401 1 Credit Grades 9-10
This research-based intervention course combines direct algebra
instruction with the use of technology to give students the opportu-
nity for success in Algebra I, which is the next sequential course.
Students will focus on instructional, modeled, and independent
algebraic experiences.

ALGEBRA I
0722301 1 Credit Grades 9-12
0722311 1 Credit Grades 9-12
This course provides students the foundation skills for future
mathematics courses, many careers, and college. This course
will help students to view algebra as a theoretical tool for ana-
lyzing and describing mathematical relationships. Students will
also experience the power of algebraic thinking in a context of
applications by studying the mathematical modeling of real-world
problems. The course content will include a rigorous approach to
solving, graphing, and writing linear, quadratic, and exponential
functions. 

GEOMETRY
0706301 1 Credit Grades 9-12
0706311 1 Credit Grades 9-12
This course is designed to emphasize the study of the properties
and applications of geometric figures in two and three dimensions.
It includes the study of transformations, similarity, congruence,
constructions, circles, and right triangle trigonometry. Inductive
and deductive thinking skills are used in problem solving situa-
tions, and applications to the real world are stressed. The course
also emphasizes solving and applying properties of geometric
figures and the relationship between algebra and geometry.
PRE: Algebra I

GEOMETRY BRIDGE
0706401 1 Credit Grades 10-11
This course is designed solely for students who did not meet the
minimum passing score on MCAP Algebra I. Students will com-
plete the Algebra I Bridge plan along with the study of geometric
concepts. The concepts include similarity, congruence, construc-
tions, circles, and right triangle trigonometry. The course also
emphasizes solving and applying properties of geometric figures
and the relationship between algebra and geometry.

HONORS GEOMETRY
0721301 1 Credit Grades 9-10
This is a rigorous, college preparatory course for the accelerated
mathematics student and is designed to emphasize the study of
the properties and applications of geometric figures in two and
three dimensions. It includes the study of transformations, similar-
ity, congruence, constructions, circles, and right triangle trigonom-
etry. Students will apply an array of inductive and deductive
thinking skills through myriad problem solving situations, and
applications to the real world are stressed. The course also em-
phasizes the use of coordinate geometry to prove relationships
while exploring the relationships between algebra and geometry.
This course may be taken concurrently with Algebra II or Honors
Algebra II. PRE: Algebra I

TOPICS OF MATHEMATICS
0718001 1 Credit Grades 10-12
0718011 1 Credit Grades 10-12
This is a course designed for students who may need more time
to develop a deep understanding of the underlying algebraic and
mathematical concepts before taking Algebra II or Algebra IIA.
Once a student has successfully completed Algebra II or Algebra
IIB, this course is no longer a viable option. This course is modeled
on the transition course for college and career readiness. PRE:
Algebra I or Geometry
ALGEBRA IIA
0709301 1 Credit Grades 10-12
This is a slower-paced course covering the first half of the Algebra II course. This pace allows students more time to explore and understand the critical algebraic concepts for college and careers. Course topics include the relationship between linear, exponential, and quadratic functions. This course, alone, does not satisfy the University of Maryland Algebra II requirement. Students must pass both Algebra II A and II B in order to meet the Algebra II requirements. PRE: Geometry

ALGEBRA IIB
0710301 1 Credit Grades 10-12
This is a slower-paced college preparatory course covering the second half of the Algebra II course. This pace allows students more time to explore and understand the critical algebraic concepts for college and careers. Course topics include rational and radical functions, logarithmic functions, trigonometric functions, the unit circle, and statistics. This course meets the requirements of the senior math college and career ready transition course. PRE: Algebra IIA

ALGEBRA II
0708301 1 Credit Grades 9-12
This is a rigorous, fast-paced college preparatory course, designed to enhance and enrich students' understanding of Algebra I concepts while focusing on problem solving, reasoning, applications, and communication. Course topics include the relationship between linear, exponential, and quadratic functions, rational and radical functions, logarithmic functions, trigonometric functions, the unit circle, and statistics. PRE: Geometry or Honors Geometry

HONORS ALGEBRA II
0716001 1 Credit Grades 9-12
This is a rigorous, fast-paced, college preparatory course for the accelerated mathematics student involves the exploration and application of variable quantities, mathematical models, and real world problems. Students will not merely find solutions, but enhance their understanding of the concepts underlying the solutions. Students will also be limited in their calculator usage. Course topics include the relationship between linear, exponential, and quadratic functions; rational and radical functions; logarithmic functions; trigonometric functions; the unit circle; and statistics. PRE: Geometry or Honors Geometry

TRIG/FUNCTIONS/STATISTICS
0713301 1 Credit Grades 10-12
This is a rigorous college preparatory course that includes the exploration and application of mathematical concepts. Students develop a deeper understanding of important mathematics, such as linear, exponential, logarithmic, and trigonometric functions; trigonometric identities; and relationships within and among function families. PRE: Algebra II or Honors Algebra II

HONORS TRIG/FUNCTIONS/STATISTICS
0714401 1 Credit Grades 10-12
This is a rigorous, college preparatory course for the accelerated mathematics student that involves the production and investigation of mathematical models not merely to find solutions, but to enhance their understanding of the concepts underlying the solutions. During this course, students improve their problem-solving skills, critical thinking skills, and reasoning abilities. Students recognize, use, and interpret equivalent representations of the same concept, and communicate mathematical knowledge effectively. In addition, students connect mathematical concepts with other topics, to other disciplines, and to real life as they prepare for success in precalculus and beyond. Course topics include linear, exponential, logarithmic, and trigonometric functions; trigonometric identities; and relationships within and among function families. PRE: Algebra II or Honors Algebra II

PRECALCULUS
0714301 1 Credit Grades 10-12
This is a rigorous, college preparatory course for motivated mathematics students. Students explore applications and deeper understanding of important mathematics, such as rational functions, systems of equations, applications of matrices, series and sequences, conic sections, limits, and derivatives. PRE: Trig/Functions/Statistics

HONORS PRECALCULUS
0712401 1 Credit Grades 10-12
This is a rigorous, college preparatory course for the accelerated mathematics student that involves the production and investigation of mathematical models, or case studies, of real world problems. Students will use these models not merely to find solutions, but to enhance their understanding of the concepts underlying the solutions. During this course, students improve their problem-solving skills, critical thinking skills, and reasoning abilities. Students recognize, use, and interpret equivalent representations of the same concept, and they communicate mathematical knowledge effectively. In addition, students connect mathematical concepts with other topics, to other disciplines, and to real life as they prepare for success in calculus and beyond. Course topics include rational functions, systems of equations, applications of matrices, series and sequences, conic sections, limits, and derivatives. PRE: Completion of or concurrent enrollment in Honors Trig/Functions/Statistics

CALCULUS
0715301 1 Credit Grades 11-12
This is a rigorous, college preparatory course for motivated mathematics students. The course helps students understand change geometrically, visually, analytically, and verbally. Calculus helps scientists, engineers, and financial analysts understand the complex relationships behind real-world phenomena. Course topics include limits, differentiation, integration, and applications. PRE: Precalculus or Honors Precalculus

AP CALCULUS AB
0741302 2 Credits Grades 11-12
This is a rigorous, college preparatory course for the accelerated mathematics student. In AP Calculus AB, students learn to understand change geometrically and visually (by studying graphs of curves), analytically (by studying and working with formulas), numerically (by seeing patterns in sets of numbers), and verbally. Instead of simply getting the right answer, students learn to evaluate the soundness of proposed solutions and to apply mathematical reasoning to real-world models. Calculus helps
scientists, engineers, and financial analysts understand the complex relationships behind real-world phenomena. The equivalent of an introductory college-level calculus course, AP Calculus AB prepares students for the AP exam and further studies in science, engineering, and mathematics. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.)

**PRE:** Precalculus or Honors Precalculus

**AP CALCULUS BC**
0743302 2 Credits  Grades 11-12
This is a rigorous, college preparatory course for the accelerated mathematics student. In AP Calculus BC, students continue their exploration of the calculus of functions of a single variable. AP Calculus BC includes specifications for two calculus courses and includes all topics taught in Calculus AB plus additional topics, such as differential equations, Taylor Series, parametric functions, and polar functions. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.)

**REC:** AP Calculus AB

**STATISTICS**
0720001 1 Credit  Grades 10-12
This is a college preparatory course that introduces students to the study of measures of central tendency, measures of variation, graphical representation of data, least squares regression, correlation probability, probability distributions, sampling techniques, parameter estimation, and hypothesis testing. The emphasis is on applications from a variety of sources including newspapers, periodicals, journals, and many of the disciplines that students may encounter. Students shall be expected to gather and analyze data, and formally report the results of their research. The use of technology is integrated throughout the course. This course may be taken immediately after Algebra II or it may be taken after any of the courses following Algebra II, including Calculus. **PRE:** Algebra II or Algebra IIB

**AP STATISTICS**
0745302 2 Credits  Grades 11-12
This is a rigorous, college preparatory course for the accelerated mathematics student. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to five broad conceptual themes, which are exploring data, sampling, experimentation, anticipating patterns, and statistical inference. This course may be taken immediately after Algebra II or it may be taken after any of the courses following Algebra II, including Calculus. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.)

**PRE:** Algebra II or Honors Algebra II

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**PHYSICAL EDUCATION & HEALTH EDUCATION**

**AEROBIC CONDITIONING**
0804005 1/2 Credit  Grades 10-12
This course involves such activities as aerobic dance, step aerobics, and a variety of new and exciting aerobic activities. This program improves the student’s level of cardiovascular fitness, muscular endurance, flexibility, and body composition. Students are given opportunities to design and practice their own routines and programs.

**PRE:** Personal Fitness RC

**ADVANCED FITNESS TRAINING**
0808001 1 Credit  Grades 10-12
This course is designed for the more serious weight lifter/athlete. This program is designed to enhance performance by increasing strength/speed/agility and cardiovascular fitness. A variety of rigorous activities will be incorporated throughout the course to reach the desired goals.

**PRE:** Teacher Approval Required RC

**CONTEMPORARY HEALTH ISSUES**
0898005 1/2 Credit  Grades 10-12
This course helps students evaluate and process current health information, and make informed decisions about health behavior. A unit on Family Life and Human Development is included in this course.

**PRE:** Health Education II

**FITNESS WALKING**
0805005 1/2 Credit  Grades 10-12
This course involves a regular program of aerobic activity involving walking/running/jogging. Students learn the principles of pacing, interval training, speed development, injury prevention, and plyometrics. This is augmented by flexibility, muscle strength, and endurance activities two days per week. Students design an individual fitness program which allows them to reach their personal goals. **PRE:** Personal Fitness RC

**HEALTH EDUCATION I**
0803305 1/2 Credit  Grades 9-10
This course provides basic instruction in self-esteem, health care products and resources, promotion of safe living, human growth and development, and disease and drug prevention. This course and successful completion of the service learning project contained in it are requirements for graduation.

**HEALTH EDUCATION II**
0804305 1/2 Credit  Grades 10-12
Community health is the focus of this course. Students apply the knowledge gained from Health Education I to develop an understanding of major health concepts and issues in their surroundings. Topics covered include: nutrition, growth & development, consumer health, environmental health, injury prevention, and disease prevention. This course is a requirement for graduation. **PRE:** Health Education I

**LIFETIME ACTIVITIES/SELF-AWARENESS**
0802305 1/2 Credit  Grades 11, 12
0802301 1 Credit  Grades 11, 12
This course is designed to increase the ability and skill of students to recognize and respond appropriately to situations which may be threatening or harmful to their well-being. Numerous activities
which lead to promoting and maintaining lifetime fitness are also explored. Throughout the course, students learn to transfer the bio-mechanical principles of movement to different situations and to a variety of lifetime activities. Students determine the types of exercises and activities that they will use to remain physically active and healthy throughout their lives. All students have the opportunity to participate in self-awareness simulations. Various lifetime activities in this course may include: tennis, golf, bowling, soccer, table tennis, volleyball, roller-blading, etc. **PRE:** One (1) full credit earned in Physical Education, including Personal Fitness

**PERSONAL FITNESS**

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<th>Code</th>
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<tr>
<td>0800005</td>
<td>1/2 Credit</td>
<td>Grade 9</td>
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This course engages students in classroom and lab activities to assess and improve individual fitness levels, to establish habits of a wellness lifestyle, and to develop a personal fitness program based on the principles of health-related fitness. This course is a requirement for graduation.

**PHYSICAL EDUCATION 10**

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<tr>
<td>0801005</td>
<td>1/2 Credit</td>
<td>Grade 10</td>
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This course helps students apply personal fitness concepts through a variety of exercise programs and activities including fitness based games and circuit training. Students will also create and play health enhancing games of their own design. **PRE:** Personal Fitness

**STRENGTH & CONDITIONING**

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<tr>
<td>0807005</td>
<td>1/2 Credit</td>
<td>Grades 10-12</td>
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<tr>
<td>0807001</td>
<td>1 Credit</td>
<td>Grades 10-12</td>
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</table>

This course provides an introduction to resistance activities emphasizing weight training. Students participate in and design programs to improve muscular strength and endurance. Students are also involved in activities to improve cardiovascular fitness and flexibility. **PRE:** Personal Fitness

**PLTW®: PRE-ENGINEERING**

To complete the PLTW® program students must apply to the CCST program after completing the two courses listed below.

**INTRODUCTION TO ENGINEERING DESIGN**

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<tr>
<td>0153301</td>
<td>1 Credit</td>
<td>Grades 9-12</td>
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This course develops problem solving skills, with an emphasis on 3-D modeling or solid rendering of an object. Students focus on the application of visualization processes and tools using the Inventor software. The course emphasizes the design-development process of a product and how a model of that product is produced, analyzed, and evaluated using a Computer-Aided Design System. Various design applications are explored with discussion of possible career opportunities. **PRE:** Algebra I (or equivalent)

**PRINCIPLES OF ENGINEERING**

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<th>Code</th>
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<tbody>
<tr>
<td>0152301</td>
<td>1 Credit</td>
<td>Grades 9-12</td>
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<tr>
<td>0152311</td>
<td>1 Credit</td>
<td>Grades 9-12</td>
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This course introduces students to the exciting world of engineering. Students explore how the principles of engineering are used to develop better and safer products and structures. Theoretical and hands-on problem solving and career possibilities are emphasized. **PRE:** Algebra I (or equivalent), Introduction to Engineering Design

**PLTW®: COMPUTER SCIENCE**

**COMPUTER SCIENCE ESSENTIALS**

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<tr>
<td>0146501</td>
<td>1 Credit</td>
<td>Grade 10</td>
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This course is an excellent entry point for computer science learners. The course introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As student sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming style side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language. The course engages students in computational thinking practices and collaboration strategies, as well as industry standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today. Students will take a PLTW End of Course Assessment.

**AP/PLTW COMPUTER SCIENCE PRINCIPLES**

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<tr>
<td>0146502</td>
<td>2 Credits</td>
<td>Grades 10-11</td>
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This course aims to develop computational thinking, generate excitement about career paths that use computing, and introduce professional tools that foster creativity and collaboration. The course also aims to build students’ awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. Each unit focuses on one or more computationally intensive career paths. The course aims to engage students to consider issues raised by the present and future societal impact of computing. Students use Python® as a primary tool and incorporate multiple platforms and languages for computation. Students practice problem solving with structured learning experiences and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems for ground-level entry with no ceiling so that all students can successfully engage the problems. Students will take both the AP Computer Science Principles Exam and PLTW End of Course Assessment. **PRE:** Computer Science Essentials

**AP/PLTW COMPUTER SCIENCE A**

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<tr>
<td>146602</td>
<td>2 Credits</td>
<td>Grades 11-12</td>
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</table>

This course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. Students will take the AP Computer Science A Exam and PLTW End of Course Assessment. **PRE:** Computer Science Essentials, AP Computer Science Principles.
Cybersecurity
0146601 1 Credit  Grade 12
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 dependable cyber-infrastructure that moves and processes information safely. Students will take the PLTW End of Course Assessment. PRE: Computer Science Essentials, AP Computer Science Principles, and AP Computer Science A.

PROSTART®

The ProStart® program, administered by the National Restaurant Association Education Foundation (NRAEF), is a nationwide system of high school restaurant and food service courses linked with mentored worksite experiences. The program is comprised of state-driven industry and educational partnerships throughout the country and exists as the national umbrella organization for restaurant and food service career education. Students who enter this program are expected to complete the following course sequence: Becoming a Food Professional I, Becoming a Food Service Professional II, and Practical Experience as a Food Service Professional. Upon successful completion of these courses, students are required to take the ProStart® certification exams.

BECOMING A FOOD SERVICE PROFESSIONAL I
0171001 1 Credit  Grades 10-12
This course provides an introduction to the food service and hospitality industry. Students develop and demonstrate skills in safe and sanitary food handling, and preparation techniques. Students learn to prepare a variety of foods. They develop a broad understanding of the variety of career options available in the food service and hospitality industry. Students can accrue up to 150 hours toward the 400 hour work-based learning experience requirement by either volunteering outside of school at a food service related business or by preparing food during class time as a service for the community. All students enrolled in this course must take the National Restaurant Association Educational Foundation end-of-course exam level I (approximately $20). Students earning a B or higher in Becoming a Food Service Professional I & II and Practical Experience as a Food Service Professional may receive articulated college credit. PRE: Becoming a Food Service Professional I & II

BECOMING A FOOD SERVICE PROFESSIONAL II
0171501 1 Credit  Grades 10-12
Students in this course continue to prepare a variety of foods. They create menus, demonstrate various types of restaurant service, apply purchasing techniques, and demonstrate an understanding of inventory monitoring and control. Students have the opportunity for an authentic, mentored work-based learning experience. Students can accrue up to 150 hours toward the 400 hour work-based learning experience requirement either by volunteering outside of school at a food service related business or by preparing food during class time as a service for the community. All students enrolled in this course must take the National Restaurant Association Educational Foundation end-of-course exam level II (approximately $20). Students earning a B or higher in Becoming a Food Service Professional I & II and Practical Experience as a Food Service Professional may receive articulated college credit. PRE: Becoming a Food Service Professional I & II

PRACTICAL EXPERIENCE AS A FOOD SERVICE PROFESSIONAL
0175101 1 Credit  Grade 12
0175102 2 Credits  Grade 12
This course provides students the opportunity to further refine and apply skills that support all aspects of the hospitality industry. Students will apply these skills in paid or unpaid internships with local businesses. Students must complete a minimum of 400 hours during their internship. Students may have obtained up to 300 hours during Becoming a Food Service Professional I & II. Students will receive a letter grade for this course based upon the number of weekly hours completed, weekly reflection journals, and monthly evaluations from the employer. Students earning a B or higher in Becoming a Food Service Professional I & II and Practical Experience as a Food Service Professional may receive articulated college credit. PRE: Becoming a Food Service Professional I & II

HUMAN GROWTH & DEVELOPMENT
0162301 1 Credit  Grades 10-12
This course focuses on human development from birth through adolescence. Emphasis is placed on theories of physical, cognitive, and psycho-social development; the effect of heredity and the environment; the role of caregivers and the family, health, and safety concerns; and contemporary issues. Students explore special challenges to growth and development. Students have opportunities for guided observations of children from birth through adolescence in a variety of settings to help them understand theories of human development. Students begin to develop the components of a working portfolio to be assembled upon completion of the internship.

SCIENCE

Students are required to earn three (3) credits in science, including biology, in order to graduate. Students interested in science-based careers are recommended to take additional science courses and/or participate in the Science, Technology, Engineering, and Mathematics (STEM) Academy.

The following courses are electives and do not meet the University of Mary Washington Science admission requirements: Robotics and Honors Research and Design Capstone.
EARTH AND ENVIRONMENTAL SYSTEMS
0921301  1 Credit  Grades 9-12
This course is designed to encourage students to analyze and ask questions about the interconnected systems that make up the environment on earth. Students will investigate the Universe, Cycles and Processes, Energy Flow, Climate Change and Human Impact on our environment. Students will define problems related to ecology and conservation methods to evaluate and design solutions in our local environment especially in regards to the Chesapeake Bay watershed.

AP ENVIRONMENTAL SCIENCE
0933302  2 Credits  Grades 11-12
This course provides college-level instruction in a secondary school setting. A college-level textbook and materials are used, and there is a rigorous laboratory component. At least seven to ten hours per week of outside class preparation is expected. The following themes provide a foundation for the structure of this course: Earth Systems; Ecosystems; Populations; Land and Water Use; Energy Resources; Pollution; Environmental Problems and Human Survival. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) PRE: 2 years of high school laboratory science

BIOLOGY
0905301  1 Credit  Grades 10-12
0905311  1 Credit  Grades 10-12
In this course, students demonstrate their ability to use scientific skills and processes, as well as major biological concepts, to explain the uniqueness and interdependence of living organisms, their interactions with the environment, and the continuation of life on earth. Major topics studied include the chemistry of life, cell structure and processes, genetics, change over time, and ecology. One (1) credit in biology is required for graduation.

HONORS BIOLOGY
0906301  1 Credit  Grades 9-12
In this course, students demonstrate their ability to use scientific skills and processes, as well as major biological concepts, to explain the uniqueness and interdependence of living organisms, their interactions with the environment, and the continuation of life on earth. Major topics studied include the chemistry of life, cell structure and processes, genetics, change over time, and ecology. One (1) credit in biology is required for graduation.

AP BIOLOGY
0930302  2 Credits  Grades 10-12
This course provides college-level instruction in a secondary school setting. A college-level textbook and materials are used, and there is a rigorous laboratory component. Seven to ten hours a week in out-of-class preparation is expected. Major topics presented include: biological chemistry, molecules and cells, genetics and evolution, and organisms and populations. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) PRE: Biology or Honors Biology, Chemistry or Honors Chemistry, and Algebra II or Honors Algebra II

PHYSICAL SCIENCE WITH APPLICATIONS IN BIOLOGY
0918301  1 Credit  Grades 11-12
Project Based Learning (PBL) is a teaching method whereby students gain knowledge by applying what they are learning to complete a specific project. The Physical Science (Chemistry and Physics) concepts studied in this course are: Newton's Laws of Motion; Energy Chemical Reactions; the Periodic Table of Elements; Reaction Rates and Waves. This is an integrated science course where students will apply these physical science concepts in designing solutions to problems that are either chemistry or biology related. PRE: Earth and Environmental Systems and Biology

CHEMISTRY
0907301  1 Credit  Grades 10-12
In this course, students demonstrate their ability to use scientific skills and processes to explore matter, its properties and structure, and changes that can occur in its structure and composition. Laboratory investigations are a vital part of this course. PRE: Geometry (or equivalent)

HONORS CHEMISTRY
0908301  1 Credit  Grades 9-12
In this course, students demonstrate their ability to use scientific skills and processes to explore matter, its properties and structure, and changes that can occur in its structure and composition. This course involves a high degree of academic rigor. Students are expected to demonstrate, by engaging in high level laboratory and research investigation, ways of practical thinking and acting that are inherent in the practice of science. High-level problem solving and analytical skills are a must for success in this course. PRE: Completion of or concurrent enrollment in Algebra II or Algebra IIB or Honors Algebra II

AP CHEMISTRY
0931302  2 Credits  Grades 11-12
This course provides college-level instruction in a secondary school setting. A college-level textbook and materials are used, and there is a rigorous laboratory component. At least seven to ten hours per week of outside class preparation is expected. Major topics presented include structure of matter, states of matter, chemical reactions and stoichiometry, chemical equilibrium and kinetics, and thermodynamics. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) PRE: Chemistry or Honors Chemistry

PHYSICS
0910301  1 Credit  Grades 10-12
In this course, students demonstrate their ability to use scientific skills and processes to explain the interaction of matter and en-
energy, and the energy transformations that occur. Major topics studied include forces, motion, waves, sound, light, electricity, and magnetism. Laboratory investigations are a vital part of this course. PRE: Completion of or concurrent enrollment in Algebra II or Honors Algebra II or Algebra IIB

HONORS PHYSICS
0910601  1 Credit  Grades 10-12
In this course, students demonstrate their ability to use scientific skills and processes to explain the interaction of matter and energy, and the energy transformations that occur. Major topics studied include forces, motion, waves, sound, light, electricity, and magnetism. This course involves a high degree of academic rigor. Students are expected to demonstrate, by engaging in high-level laboratory and research investigation, ways of practical thinking and acting that are inherent in the practice of science. High-level problem solving and analytical skills are necessary for success in this course. PRE: Completion of or concurrent enrollment in Algebra II or Honors Algebra II or Algebra IIB

AP PHYSICS 1: ALGEBRA-BASED
0935302  2 Credits  Grades 11-12
This course is an Algebra-based, introductory level college physics course that explores Newtonian mechanics; rotational motion; work, energy, power; wave mechanics; and simple electric circuits. Through inquiry-based learning, students will develop critical thinking and reasoning skills. No prerequisite course work in physics is required to take this course. A college-level textbook and materials are used, and the course includes a rigorous laboratory component. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) PRE: Physics or Honors Physics and Trig/Functions/Statistics, Honors Trig/Functions/Statistics or Honors Calculus or Precalculus

AP PHYSICS 2: ALGEBRA-BASED
0936302  2 Credits  Grades 11-12
This course is algebra-based, introductory level college physics course that explores fluid dynamics, thermodynamics, PV diagrams and probability, electrostatics, electric circuits with capacitors, electromagnetism, optics, quantum physics, atomic physics, and nuclear physics. Through inquiry-based learning, students will develop critical thinking and reasoning skills. No prerequisite work in physics is required to take this course. A college-level textbook and materials are used, and the course includes a rigorous laboratory component. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) PRE: Physics or Honors Physics and Calculus or Calculus

AP PHYSICS C: ELECTRICITY AND MAGNETISM
0937302  2 Credits  Grades 11-12
This course provides college-level instruction in a secondary school setting. A college-level textbook and materials are used, and there is a rigorous laboratory component. Extensive outside of class preparation is expected to meet the demands of this course. The course concentrates on the study of electricity and magnetism using principles of calculus. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course. This course will develop critical thinking skills and use introductory differential and integral calculus. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. The course is geared towards the Physics C exam. (AP exam fee is approximately $95.) PRE: Physics or Honors Physics and Trig/Functions/Statistics, Honors Trig/Functions/Statistics or Honors Calculus or Precalculus

AP PHYSICS C: MECHANICS
0934302  2 Credits  Grades 11-12
This course provides college-level instruction in a secondary school setting. A college-level textbook and materials are used, and there is a rigorous laboratory component. Extensive outside of class preparation is expected to meet the demands of this course. The course concentrates on the study of mechanics using principles of calculus. This course provides instruction in the following areas: kinematics; Newton’s laws of motion; dynamics; work, energy and power; momentum; circular motion and rotation; gravitation and oscillation. This course will develop critical thinking skills and use introductory differential and integral calculus. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. The course is geared towards the Physics C exam. (AP exam fee is approximately $95.) PRE: Physics or Honors Physics and Calculus or Calculus

ANATOMY & PHYSIOLOGY
0901301  1 Credit  Grades 11-12
In this course, students demonstrate their ability to use scientific skills and processes to explore the structural and functional organization of the human organism. Initial emphasis will be on the concepts of homeostasis and levels of organization. This is followed by a study of the human organ systems. PRE: Biology or Honors Biology and Chemistry or Honors Chemistry

ZOOLOGY
0912601  1 Credit  Grades 11-12
Zoology is the study of the animal kingdom. The focus of study is on the internal and external anatomy of representative specimens of the major animal phyla. An understanding of how animals have adapted to various systems to meet survival needs is developed. Zoology requires several dissections to examine body systems in different organisms. PRE: Biology or Honors Biology

ROBOTICS
09395001  1 Credit  Grades 11-12
The objective of this course is to use a hands-on approach to introduce students to basic robotics concepts and applications. Heavy emphasis will be placed on the utilization of the engineering design process. Students will work in teams to build and program LEGO and TETRIX-based robots that will accomplish increasingly complex tasks. Throughout the process, students will learn about...
sensors, different types of gears and gear ratios, electric motors, and DC circuits.

HONORS RESEARCH AND DESIGN/CAPSTONE
0919101  1 Credit  Grades 11-12
This course is designed to give the STEM Academy student the opportunity to learn and apply the basics of experimental design. Students conceive of, design, and complete an authentic project using scientific inquiry and/or the engineering design process. Emphasis is placed on safety issues, research protocols, controlling and manipulating variables, data analysis, and an interpretation of the data through visual and written communication. Students will develop their skills in technical reading and writing; mathematical and statistical aspects of data analysis; and the engineering design process. The student will communicate their findings from the research project to business and community leaders, educators, and experts from STEM related businesses. PRE: Honors Biology and Honors Chemistry, and Honors Trigonometry/Functions/Statistics.  

SERVICE LEARNING
See “Service Learning Requirement” on page 23 of this guide or contact your school counselor for more information regarding this requirement.  

SERVICE LEARNING
0560305  1/2 Credit  Grades 11-12
0560301  1 Credit  Grades 11-12
This program provides the opportunity to earn elective credit while working on an approved service learning activity. Students receive classroom instruction focusing on interpersonal communication skills, advocacy programs, social opportunities, time management skills, and career exploration. Students select a site(s) and complete their service learning requirement in a direct service model. Satisfactory service completed in this program fulfills the service learning graduation requirement. Students are encouraged to earn meritorious service hours in their communities upon completion of the graduation requirement. Only one (1) service learning credit may be earned per year in the junior and senior year.  

SOCIAL STUDIES
Students must complete a minimum of one (1) social studies course per year and earn a minimum of four (4) social studies credits during grades 9-12. In addition to the state required courses of Government, World History, and US History, all students must successfully complete a course in Contemporary World Studies, AP United States Government and Politics, Introduction to Personal Finance, AP Psychology, AP Human Geography, Intro to Psychology, or Intro to Sociology that will be offered to students as a fourth social studies requirement.

The following courses are electives and do not meet the University System of Maryland social studies admission requirements: Psychology and AP Psychology.

GOVERNMENT
1000301  1 Credit  Grade 9
1000311  1 Credit  Grade 9
This course provides students with the understandings necessary for active citizenship in a culturally diverse democratic society. Students will use an inquiry approach through extensive reading of source documents and technical writing to study the historical foundations of United States government, its institutions, functions, responsibilities, and impact on citizens. Students also understand the role and responsibilities of citizenship toward ensuring the continuation of the American way of life. In addition, students are introduced to the concept of world interdependence and the influence of our nation in world affairs. All students must complete a research project in this course.

HONORS GOVERNMENT
1001301  1 Credit  Grade 9
1001311  1 Credit  Grade 9
This course includes all the skills and understandings included in Government; however, more rigorous instruction and independent study are to be expected. Outside class reading and writing assignments with follow up requirements will occur. All students must complete a research project in this course.

AP UNITED STATES GOVERNMENT AND POLITICS
1020002  2 Credits  Grades 11-12
This course provides college-level instruction in a high school setting. In this political science course, students will demonstrate an understanding of the underpinnings of democracy; political beliefs and behaviors; political parties and interest groups; institutions of governments; public policy and civil liberties. Through inquiry, students will read extensively from primary and secondary source documents and practice technical writing to prepare for the AP exam. Outside class reading and writing assignments with follow up requirements may occur. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) All students must complete a written research project in this course.

WORLD HISTORY
1002301  1 Credit  Grade 10
1002311  1 Credit  Grade 10
This course provides students with an understanding and appreciation for the historical development of world societies beginning with the Renaissance period to the modern era. Students will use an inquiry approach through extensive reading of source documents and technical writing to study the intellectual, cultural, economic, and geopolitical trends that have influenced the modern world. Cultural geography and multinational interdependence are primary focal points of this course along with the historical perspectives of each era studied. All students must complete a research project in this course.

HONORS WORLD HISTORY
1003301  1 Credit  Grade 10
1003311  1 Credit  Grade 10
This course provides the same skills and understandings included in World History; however, more rigorous instruction and independent study are to be expected. Outside class reading and writing
assignments with follow up requirements will occur. All students must complete a written research project in this course.

UNITED STATES HISTORY

1004301  1 Credit  Grade 11
1004311  1 Credit  Grade 11

This course introduces students to the history of the United States beginning with the Post-Reconstruction period to the present. Students will use an inquiry approach through extensive reading of source documents and technical writing to study the political, economic, social, geographic, and cultural developments that helped the United States become a world leader. All students must complete a research project in this course.

HONORS UNITED STATES HISTORY

1005301  1 Credit  Grade 11
1005311  1 Credit  Grade 11

This course provides the same skills and understandings included in United States History. However, through more rigorous instruction, students are expected to read and write extensively with a higher degree of independence. Outside class reading and writing assignments with follow up requirements will occur. All students must complete a written research project.

AP UNITED STATES HISTORY

1021302  2 Credits  Grades 11-12

Students study the full scope of American history beginning with its discovery in 1492 through the present day. Students study the political, economic, social, geographic, and cultural developments that helped the United States become a world leader. Through inquiry, students read extensively from primary source documents and practice technical writing to prepare for the AP U.S. History exam. Outside class reading and writing assignments with follow up requirements will occur. To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) All students must complete a written research project in this course.

CONTEMPORARY WORLD STUDIES

1006301  1 Credit  Grades 11-12
1006311  1 Credit  Grades 11-12

Students will use an inquiry approach through extensive reading of source documents and technical writing to gain an understanding and respect for the values, customs, and views of world cultures in order to better appreciate America’s role as a world leader and how global events impact the citizens of the United States. Using a hybrid format of online learning and face-to-face instruction, students will complete various class assignments using technology in the classroom. All students will complete multiple research projects.

INTRODUCTION TO PERSONAL FINANCE

1008301  1 Credit  Grades 12

Students will investigate a wide variety of concepts to help them manage their financial future. Students will learn to develop goals, create spending plans, manage earnings, navigate credit and debit, make informed financially responsible decisions, and learn ways to save and invest to achieve long-term financial goals.

AP HUMAN GEOGRAPHY

1010002  2 Credits  Grades 11-12

This course provides college-level instruction in a high school setting. Human Geography is the study of where humans and their activities and institutions such as ethnic groups, cities, and industries are located and why they are there. By analyzing geography, population, cultural patterns, organization of space, land use, industrial and economic development students will gain a better understanding of the world they live in. Through inquiry, students will read extensively from primary and secondary source documents and practice technical writing to prepare for the AP exam. [Outside class reading and writing assignments with follow up requirements will occur.] To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) All students must complete a written research project in this course.

PSYCHOLOGY

1009701  1 Credit  Grades 11-12
1009711  1 Credit  Grades 11-12

Using an inquiry approach to learning, students learn about the biological, sociological, environmental, and cultural influences on human behavior. Understanding that human behavior is a combination of many factors, students are able to understand and cope with the many frustrations, conflicts, and problems associated with living in a modern society.

AP PSYCHOLOGY

1024302  2 Credits  Grades 11-12

This course provides college-level instruction in a secondary school setting. Using an inquiry approach to learning, students are introduced to the methods psychologists use when studying the behavior of humans and animals. Facts, principles, and phenomena of each major sub-field within psychology are explored. [Outside class reading and writing assignments with follow up requirements will occur.] To earn an AP weighted high school credit, students enrolled in an AP course must take the College Board exam administered at the conclusion of the course. (AP exam fee is approximately $95.) Purchase of support materials is optional.

SUPPORT SERVICES

ACADEMIC ASSISTANCE

1160005  1/2 Credit  Grades 9-12
1160001  1 Credit  Grades 9-12

These classes provide essential learning strategies and study skills support for students who may or may not be working toward a diploma. Assistance related to the content materials in the student’s academic schedule is provided. The goals and hours of service are determined on an individual basis. RC
CAREER AND ACADEMIC SEMINAR
117001  1 Credit  Grades 9-12
This class supports special education students so that they graduate on time with a viable career plan in place. Students are supported in passing their classes through homework/classwork support, organization, time management, test taking skills in addition to addressing a variety of individual needs. Students may use this class to meet extra time accommodations, complete Bridge Projects, Grade Recouping, or Credit Recovery. In addition, students will work on career and financial literacy goals to meet IEP and career readiness requirements. RC

LEARNING FOR INDEPENDENCE (CCST Only)
1130000  0 Credit  Grades 9-12
This course provides students ages 18-21, working toward a Certificate of Completion by following alternate outcomes, the opportunity to develop a range of skills that will lead to supported community-based employment and life skills necessary to function independently in the community. The program provides opportunities for students to apply independent skills within functional academics, community, vocational, independent arts, and consumer math. Course is currently offered in age appropriate setting. P/F RC

TRANSITIONAL ENGLISH
1130100  0 Credit  Grades 9-12
This course provides students, who are following alternate outcomes and working toward a Certificate of Completion, instruction in vocabulary, reading comprehension, and writing within real-world applications. Students will read and comprehend a variety of texts related to personal management, community, recreation/leisure, career vocational, and communication/decision-making/interpersonal skill development. Focus will be on aligning the reading targets to the student’s individual Transition Plan. P/F RC

TRANSITIONAL MATH
1130200  0 Credit  Grades 9-12
This course provides students, who are following alternate outcomes and working toward a Certificate of Completion, instruction in money management, time management, classification and measurement skill development within real-world applications. Students will solve mathematical problems in daily life situations related to personal management, community, recreation/leisure, career vocational, and communication/decision-making/interpersonal skill development. Focus will be on aligning the math targets to the student’s individual Transition Plan. P/F RC

TRANSITIONAL SCIENCE
1130300  0 Credit  Grades 9-12
This course provides students, who are following alternate outcomes and working toward a Certificate of Completion, instruction in healthy life choices, such as proper nutrition and personal hygiene, family life issues, and following proper safety guidelines throughout daily activities within real-world applications. Students will solve problems in daily life situations related to personal management, community, recreation/leisure, career vocational, and communication/decision-making/interpersonal skill development. Focus will be on aligning the science related targets to the student’s individual Transition Plan. P/F RC

TRANSITIONAL CAREER READINESS
1130400  0 Credit  Grades 9-12
This course provides students, who are following alternate outcomes and working toward a Certificate of Completion, instruction in the necessary skills required to be successful in the work setting. Instructional activities and work experiences are conducted within the school, community, and/or work environment. Students will explore potential employment opportunities as outlined in their Transition Plan within the IEP. Employability skill development in personal management, community, recreation/leisure, career vocational, and communication/decision-making/interpersonal skills will be addressed through real-life situations. P/F RC

STUDENT TRANSITION & EMPLOYABILITY PROGRAM (STEP) - CCST Only
1130102  2 Credits  Grades 11-12
The Student Transition and Employability Program provides selected students with an opportunity to develop a range of employability skills within school-based work settings. These skills include self-awareness, career awareness, career exploration, career preparation, job seeking and advancement, and career satisfaction. P/F RC

TECHNOLOGY

FOUNTATIONS OF TECHNOLOGY
0140001  1 Credit  Grades 9-12
This course explores the application of technical knowledge, tools, and skills needed to solve practical problems. Instruction is centered on problem solving and hands-on activities in the areas of construction, manufacturing, communication, biotechnology, power and energy, and transportation. TE

COMPUTER SCIENCE PRINCIPLES
0146301  1 Credit  Grades 9-10
This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. More than a traditional introduction to programming, it is an engaging and an approachable course that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in. This course covers a broad range of foundational topics such as programming, algorithms, the internet, big data, digital privacy and security, and the societal impacts of computing. This course is for beginners and students with experience in other courses. TE

DESIGN & CADD I
0148301  1 Credit  Grades 10-12
0148311  1 Credit  Grades 10-12
Students learn and apply Computer Aided Design and Drafting (CADD) skills to architecture and/or engineering. Students work on individual as well as group projects. The course does not require previous knowledge of computers or drafting. Students earning a grade of B or higher in Design and CADD I & II may receive articulated college credit. AT

DESIGN & CADD II
0150301  1 Credit  Grades 10-12
Students work with more complex CADD skills and apply them to solving difficult problems in both individual and group settings.
COURSES DESCRIPTIONS

ENERGY & POWER/TRANSPORTATION TECHNOLOGY
0176001  1 Credit  Grades 10-12
This course introduces students to different types of energy forms, how energy can be transformed into power, and the different modes of transportation. Students learn how these systems work including the issues and impacts of these technologies. Most of the activities in this course are problem-based. Students design, construct, and test many prototypes related to transportation technologies. **PRE:** Earned one (1) technology education credit for graduation

CONSTRUCTION/MANUFACTURING TECHNOLOGY
0177001  1 Credit  Grades 10-12
This course introduces students to construction and manufacturing careers. Students learn how technological advances of construction and manufacturing have affected society both positively and negatively. Most of the activities in this class are problem-based. Students incorporate mathematics and science concepts to design, construct, and test. **PRE:** Earned one (1) technology education credit for graduation

HEALTHCARE INTERNSHIP
0109801  1 Credit  Grade 12
0109802  2 Credits  Grade 12
This course offers a work-based learning experience for a minimum of 6 hours per week in a healthcare setting. Students work in close conjunction with a professional healthcare provider. Students observe and interact with professionals performing related healthcare activities. The internship provides the opportunity for professional and personal growth. Students will receive a letter grade for this course based upon the number of weekly hours completed, weekly reflection journals, and monthly evaluations from the employer. **PRE:** Biology or Honors Biology  **REC:** Chemistry or Honors Chemistry

ENGLISH SPEAKERS OF OTHER LANGUAGES (ESOL)
The ESOL program is based on WIDA’s English Language Development Standards which represent the social, instructional, and academic language that English Learners need to engage with peers and educators, the curriculum in schools, and participate in society.

Through content-based language instruction, students acquire the language and literacy skills needed to achieve academic success and developed critical thinking, collaborations, and problem-solving skills. The courses available include ESOL I, II, and III; each provides a learning environment that builds on students’ assets, contributions, and potential.

ESOL I (English Speakers of Other Languages)
0310301  1 Credit  Grades 9-12
This course focuses on teaching English within academic contexts to students who are at the entering levels of English language proficiency (i.e., Levels 1.0-1.9). Linguistic and literacy development are the primary focus as students acquire and negotiate the academic language needed to participate successfully in school. Instruction encompasses four language domains: listening, speaking, reading, and writing while gradually increasing the complexity of discourse, sentence and word/phrase dimensions of language acquisition. **RC**

ESOL II (English Speakers of Other Languages)
0311301  1 Credit  Grades 9-12
This course builds upon the language and literacy development in ESOL I and is intended for students at the emerging levels of English language proficiency (i.e., Levels 2.0-2.9). Language and literacy continue to be the primary focus as students acquire and negotiate academic language through the four language domains, learn to make sense of complex content, and articulate their understanding at higher levels of academic discourse specific to the content disciplines. **RC**

ESOL III (English Speakers of Other Languages)
0312301  1 Credit  Grades 9-12
This course is designed for English Learners within the developing levels of English language proficiency (i.e., Levels 3.0-3.9). More emphasis is placed on linguistic and literacy development within academic contexts. Students are challenged with acquiring higher levels of academic language and making sense of more complex content/texts. They apply academic languages to articulate understanding and assess their own growing understanding and language development. **RC**

WORLD LANGUAGES

The focus of the world languages program for grades 9-12 is on developing students’ linguistic and cultural capacities to bring global competence to their future careers and experiences. Through learner-centered environments that emphasize critical thinking and problem solving, students acquire and practice the target language in relevant contexts while investigating and reflecting on the relationships between the products/practices and perspectives of the cultures studied.

The World Languages Completer Program includes a required two-course sequence of French, German, Chinese, or Spanish for all students planning to attend college. Students are encouraged to extend the sequence through Levels III, IV, and AP (where that course is available). All students are strongly encouraged to include this sequence in their graduation plan. Due to the strong emphasis on interpersonal communication in the world languages curriculum, these courses cannot be taken as independent study.
Students planning to attend college should note that some colleges do not recognize high school credits earned in middle school. These students should complete at least two (2) sequential world language credits while in grades 9 through 12.

The National Collegiate Athletic Association (NCAA) does not accept high school credits earned in a middle school.

LEVEL I: CHINESE, FRENCH, GERMAN, SPANISH

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<th>Language</th>
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<tbody>
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<td>1231301</td>
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<tr>
<td>Spanish</td>
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This course is an introduction to the study of the target language and its culture. Emphasis is placed on communication through the development of the four skills of listening, speaking, reading, and writing within a given context. The content focuses on the students' lives and experiences, and includes an exposure to everyday cultural customs and lifestyles. Students acquire some insight into how languages and cultures work by making comparisons to their own. Student identify the culture’s products and practices to better understand different perspectives and learn to interact with cultural awareness in everyday, familiar contexts. (Note: German and Chinese available only at RSHS)

LEVEL II: CHINESE, FRENCH, GERMAN, SPANISH

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Students continue developing their listening, speaking, reading, and writing skills. They communicate orally and in writing on familiar situations in the past and present as they combine learned elements of the language. They develop skills to narrate, describe, and compare familiar topics from the target. (Note: German and Chinese available only at RSHS)

HONORS LEVEL III: CHINESE, FRENCH, GERMAN, SPANISH

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In level III, students expand their listening, speaking, reading, and writing skills as they create with the language and access a variety of authentic materials on generally familiar topics. Students communicate ideas orally and in writing using past, present, and future timeframes. They identify main idea(s) and some details. They initiate and engage in higher levels of discourse as they narrate, describe, compare and summarize using groups of related sentences and short cohesive passages. Students recognize significant differences in behaviors exist among cultures and interact with others using language and behaviors appropriate to the target culture(s). Students apply their knowledge and skills inside and outside of the classroom setting. PRE: Level II of same language. (Note: German and Chinese available only at RSHS)

HONORS LEVEL IV: CHINESE, FRENCH, GERMAN, SPANISH

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Students communicate in writing and in extended conversations on a variety of familiar and some unfamiliar topics. They begin to narrate, discuss, and support fairly complex ideas and concepts using concrete facts and details in a variety of timeframes. Many different types of authentic text (short stories, poetry, excerpts from various periods of literature, and current events) are included. Finer points of grammar are studied to aid oral and written communication; however, grammar is not overemphasized at the expense of communication. There is more in-depth study of the target culture(s) and their influence throughout the world. Students have a greater understanding of the target culture’s perspectives and are able to interact with others in and out of the classroom setting using culturally appropriate behaviors. PRE: Level III of same language. (Note: German and Chinese available only at RSHS)

AP LANGUAGE AND CULTURE: CHINESE, FRENCH, GERMAN, SPANISH

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<td>Spanish</td>
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The AP Language and Culture course emphasizes communication by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. Student explore culture in both contemporary and historical contexts and develop awareness and appreciation of cultural products, practices, and perspectives. (AP exam fee is approximately $95) PRE: Level IV of same language. (Note: German and Chinese available only at RSHS)
### Technology Education Credit Courses

- Intro to Engineering Design (1)
- Foundations of Technology (1)
- Computer Science Principles (1)

### Advanced Technology Credit Courses

- Construction/Manufacturing Technology
  - Design & CADD I
  - Design & CADD II
- Energy & Power/Transportation Technology
  - Applied Trades Academy I & II

### Career Technology Education Completer Programs

**Program offerings vary by school**

**BIOMEDICAL SCIENCES (PLTW®)** (CCST and PHS Only)
- Principles of Biomedical Sciences
- Human Body Systems
- Medical Intervention
- Honors Biomedical Innovation™

**BUSINESS & MARKETING PROGRAM**
- Principles of Business Management & Entrepreneurship
- Principles of Accounting and Finance
- Introduction to Marketing
- Advanced Marketing and Entrepreneurship
- Capstone

**COMPUTER SCIENCE (PLTW®)** (NEHS, PHS, and RSHS Only)
- Computer Science Essentials
- AP/PLTW Computer Science Principles
- AP/PLTW Computer Science A
- Cyber Security

**PRO START®**
- Becoming a Food Service Professional I
- Becoming a Food Service Professional II
- Practical Experience as a Food Service Professional (2 credits)

**School of Technology CTE Completer Programs**

- Agricultural Sciences Program*
- AHP - Cert Nursing Assistant/Geriatric Nursing Assistant Program
- AHP - Cert Clinical Medical Assistant Program
- American Culinary Federation - Professional Cooking Program
- Automotive Technology Program
- Career Based Learning Program
- Construction Trades Program
- Cosmetology Program
- Diesel Technician Program
- Electrical Trades Program
- Fire Science/Emergency Medical Services Program
- Heavy Industrial Maintenance Program
- Homeland Security & Emergency Preparedness Program*
- Interactive Media Production Program*
- IT Networking Academy (Cisco Academy) Program
- Natural Resources Program
- Plumbing/HVAC Technology Program
- Project Lead The Way: Biomedical Sciences Program*
- Project Lead the Way: Pre-Engineering Program*
- Teacher Academy of Maryland Program*
- Welding & Metals Technology Program

* Capstone course required
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* Certification test taken at the end of this course.
** The concentrator course is the 3rd course in a four-course completer sequence (or the course coming after completing 50% of the program).
*** The completer course is the last or capstone course of a CTE completer program.
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# Student Graduation Plan

**Name:**

**High School:**

**Career Goals:**

### Career Cluster Pathway:

**Arts & Communications**
- Pathway

**Health & Human Services**
- Pathway

**Science, Engineering & Technology**
- Pathway

**Business, Finance, & Marketing**
- Pathway

### REQUIREMENTS:

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**Unweighted GPA**

**Weighted GPA**

**Completer Program:**

**World Lang.**

**Advanced Tech**

**CTE**

### Required Credits

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**TOTAL CREDITS (25)**

**Additional Credits Earned**