

# 2024-2025

## Career & Technology Education Planning Guide



## Calvert County High Schools

**Calvert High School**  
520 Fox Run Blvd.  
Prince Frederick, MD 20678  
Ms. Andrea Young, *Principal*  
Main Office: 443-550-8880 Guidance Office: 443-550-8893

**Huntingtown High School**  
4125 N. Solomons Island Road  
Huntingtown, MD 20639  
Mr. Beth Morton, *Principal*  
Main Office: 443-550-8810 Guidance Office: 443-550-8816

**Northern High School**  
2950 Chaneyville Road  
Owings, MD 20736  
Dr. Kevin Simmons, *Principal*  
Main Office: 443-550-8950 Guidance Office: 443-550-8941

**Patuxent High School**  
12485 Southern Connector Blvd.  
Lusby, MD 20657  
Mr. Anthony Barone, *Principal*  
Main Office: 443-550-8840 Guidance Office: 443-550-8855

## Calvert County Middle Schools

**Calvert Middle School**  
655 Chesapeake Blvd.  
Prince Frederick, MD 20678  
Ms. Rebecca Bowen, *Principal*  
Main Office: 443-550-8970 Guidance Office: 443-550-8972

**Mill Creek Middle School**  
12200 Southern Connector Blvd.  
Lusby, MD 20657  
Ms. Shelley Amstutz, *Principal*  
Main Office: 443-550-9190 Guidance Office: 443-550-9203

**Northern Middle School**  
2954 Chaneyville Road  
Owings, MD 20736  
Mr. Jaime Webster, *Principal*  
Main Office: 443-550-8230 Guidance Office: 443-550-9228

**Plum Point Middle School**  
1475 Plum Point Road  
Huntingtown, MD 20639  
Ms. Danielle Swann, *Principal*  
Main Office: 443-550-9170 Guidance Office: 443-550-9175

**Southern Middle School**  
9615 H. G. Trueman Road  
Lusby, MD 20657  
Mr. James Carpenter, *Principal*  
Main Office: 443-550-9250 Guidance Office: 443-550-9259

**Windy Hill Middle School**  
9560 Boyds Turn Road  
Owings, MD 20736  
Mr. Mark Whidden, *Principal*  
Main Office: 443-550-9310 Guidance Office: 443-550-9313

## Calvert County Special Schools & Centers

**Career and Technology Academy**  
330 Dorsey Road  
Prince Frederick, MD 20678  
Mrs. Carrie Akins, *Principal*  
Main Office: 443-550-9940 Guidance Office: 443-550-9972

**Calvert Country School**  
1350 Dares Beach Road  
Prince Frederick, MD 20678  
Ms. Racheal Lindauer, *Principal*  
Main Office: 443-550-9910

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Calvert County Public Schools  
Divisions of Instruction & Student Services • 443-550-8000  
1305 Dares Beach Road, Prince Frederick, MD 20678

**Nondiscrimination Statement**

Calvert County Public Schools does not discriminate on the basis of race, color, religion, sex, age, ancestry or national origin, familial status, marital status, physical or mental disability, sexual orientation, gender identity and expression, or genetic information in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following persons have been designated to handle inquiries regarding the non-discrimination policies:

- Director of Student Services
- Director of Human Resources  
443-550-8000

For further information on notice of non-discrimination, visit the Office for Civil Rights Complaint Assessment System at: <https://ocrcas.ed.gov> or call 1-800-421-3481.

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**Anti-sexual, Anti-racial and Anti-disability Harassment Statement**

Discrimination can manifest itself in behaviors such as bullying, harassment, or intimidation of individuals.

Calvert County Public Schools does not tolerate any form of harassment including, but not limited to, sexual, racial, or disability. Any individual (student, employee, or community member) who believes that they have been subjected to any form of harassment is encouraged to report the allegation of harassment. Students, parents, and community members may report allegations of harassment to: Ms. Cecelia Lewis, Director of Student Services, Calvert County Public Schools, 1305 Dares Beach Road, Prince Frederick, MD 20678

Employees may report allegations of harassment to: Mr. Zachary Seawell, Director of Human Resources, Calvert County Public Schools, 1305 Dares Beach Road, Prince Frederick, MD 20678

Calvert County Public Schools is committed to conducting a prompt investigation for any allegation of harassment. If harassment has occurred, the individual will be disciplined promptly. Disciplinary actions for students found to have engaged in any form of harassment may result in suspension or expulsion. Disciplinary actions for employees found to have engaged in any form of harassment may result in suspension or termination.

Calvert County Public Schools encourages all students, parents, employees, and community members to work together to prevent any form of harassment.

For further information on notice of non-discrimination, visit the Office for Civil Rights Complaint Assessment System at: <https://ocrcas.ed.gov> or call 1-800-421-3481.

**Calvert County Public Schools Antiracism Statement**

Calvert County Public Schools (CCPS) explicitly denounces racism, bullying, discrimination, white supremacy, hate, and racial inequity in any form within our school community. Furthermore, CCPS will not tolerate the values, structures, and behaviors that perpetuate systemic racism.

Each member of the district, individually and collectively, is responsible for creating and nurturing a safe, antiracist learning environment where each student, staff member, and community partner is a respected and valued member of the CCPS community.

## Career & Technical Education

In order to receive a Maryland High School Diploma, students must complete a program of study, or pathway. There are two possible graduation pathways: College Preparatory or Career and Technical Education. Students can also complete both pathways and be a dual completer.

Career and Technical Education (CTE) is relevant, authentic learning that gives students real job-related experiences and allows them to pursue areas of strength as well as areas of interest. It is this relevance and authenticity that provides students an educational program that truly prepares them for a career and/or college. In many CTE programs, students have an opportunity to earn college credits while still in high school.

Calvert County Public Schools offers a wide variety of CTE programs of study. Of these programs, thirteen are offered at the Career and Technology Academy (CTA), which is adjacent to Calvert High School's campus in Prince Frederick. All programs at the CTA are designed to prepare students for post-secondary education and/or employment. Programs at the CTA are two year programs. Students attend CTA in eleventh grade for level one and in twelfth grade for level two. Level one classes are generally two periods long and level two classes are three periods long. Students in level one classes also take their English course while at CTA (except students in Cosmetology or Firefighter/Emergency Medical Technician).

The programs at CTA are open to all eleventh and twelfth-grade students. Students who are repeating tenth grade may enroll in Career and Technology Academy courses with their high school principal's permission. Priority for enrollment in level one courses is given to eleventh grade students. Twelfth graders may be permitted to enroll in level one if space is available.

At CTA, Job Placement Services provide employment readiness training for career and technical education students in the thirteen program areas. Students learn to correctly complete a job application, resume, and cover letter, and will participate in individual job interviews. Seniors receive a portfolio which includes their transcript, resume, employability profile, and job application.

The CTE programs available at CTA are:

- Academy of Health Professions
- Automotive Service Technician
- Carpentry & Home Improvement
- CISCO Networking & Cybersecurity
- Cosmetology
- Culinary Arts
- Curriculum for Agriculture Science Education (CASE)
- Electricity
- Firefighter/Emergency Medical Technician
- Graphic Arts
- Interactive Media Production
- Plumbing, Heating, Ventilation, and Air Conditioning
- Welding

In addition to the CTE programs available at CTA, many Career and Technical Education programs are offered at the four high schools. These programs consist of three or four courses.

Students may complete one of the following CTE programs without ever leaving their home school:

- Accounting
- Apprenticeship Maryland
- Business Administrative Services
- Business Management
- Career Research and Development
- Computer Science
- Criminal Justice/Law Enforcement
- Naval Science/NJROTC
- Project Lead the Way – Biomedical Sciences
- Project Lead the Way – Pathway to Engineering
- Teacher Academy of Maryland (TAM)

Students who complete both a college prep pathway as well as a CTE pathway are referred to as Dual Completers. Dual completion provides students with more options upon graduating from high school. Students who graduate as dual completers are prepared to continue their education in college as well as to enter the workforce.

**Articulation Agreements for Career and Technical Education Programs of Study**

The majority of the pathways have articulation agreements in place with community colleges, technical colleges or universities which provide college credit for the completion of high school courses. Some of the programs have a “memorandum of understanding” in place with a local union giving CCPS graduates a head start when joining a union. For more information, please call the CTA.

Below is a list of articulation agreements by program:

| <b>Pathways</b>   | <b>Location of Program</b> | <b>Articulation</b>  |
|---|----------------------------|--|
| Academy of Health Professions                                       | CTA                        | CSM  |
| Academy of Health Professions Physical Rehabilitation Concentration | CTA                        | CSM (via Dual Enrollment/Transcribed credit)   |
| Business Management   | Home High School           | CSM  |
| Accounting  | Home High School           | CSM  |
| Automotive Service Technician                                       | CTA                        | Advanced Technical Institute<br>Community College of Baltimore County<br>Nashville Auto Diesel College<br>Ohio Technical College<br>Pennsylvania College of Technology<br>Universal Technical Institute<br>University of Northwestern Ohio |
| Carpentry & Home Improvement  | CTA                        | Mid-Atlantic Carpenters Training Center  |

| <b>Pathways</b>                             | <b>Location of Program</b> | <b>Articulation</b>   |
|---|----------------------------|---|
| CASE Agriculture                            | CTA                        | Blue Ridge Technical and Community College<br>Community College of Baltimore<br>Delaware Valley University<br>Rutgers University<br>St. Mary's College of Maryland<br>University of Maryland – Institute of Applied Agriculture                   |
| CISCO Networking & Cybersecurity            | CTA                        | CSM   |
| Criminal Justice/Law Enforcement            | Home High School           | CSM (via Dual Enrollment/Transcripted Credit)   |
| Culinary Arts                               | CTA                        | Anne Arundel Community College<br>Johnson & Wales University  |
| Electricity                                 | CTA                        | Union Apprenticeship Programs   |
| Fire Fighter/EMT                            | CTA                        | University of Maryland  |
| Graphic Arts                                | CTA                        | Boston University<br>CSM  |
| Interactive Media Production                | CTA                        | CSM (via Dual Enrollment/Transcripted Credit)   |
| P-HVAC                                      | CTA                        | CSM<br>Union Apprenticeship Programs  |
| Project Lead the Way-Pathway to Engineering | Home High School           | CSM<br>UMBC   |
| Project Lead the Way-Biomedical Sciences    | Home High School           | CSM (via Dual Enrollment/Transcripted Credit)<br>Stevenson University   |
| Teacher Academy of Maryland                 | Home High School           | Bowie State University<br>Coppin State<br>CSM<br>Frostburg State University<br>Hood College<br>McDaniel College<br>Morgan State University<br>Salisbury University<br>Stevenson University<br>St. Mary's College of Maryland<br>Towson University |
| Welding                                     | CTA                        | Union Apprenticeship Programs   |

The following programs are offered at each of the four home high schools:

| Program  | Course Number | Course Name  | Credits |
|--|---------------|--|---------|
| <b>Accounting</b>                                    | 5000          | Principles of Business Administration and Management                 | 1       |
|  | 5050          | Principles of Accounting   | 1       |
|  | 5060          | Advanced Accounting  | 1       |
| <b>Apprenticeship Maryland</b>                       | 8680          | Apprenticeship Related Technical Instruction                         | 1       |
|  | 8681          | Apprenticeship Work-Based Learning Experience I                      | 1       |
|  | 8682          | Apprenticeship Work-Based Learning Experience II                     | 1       |
|  | 8683          | Apprenticeship Work-Based Learning Experience III                    | 1       |
| <b>Business Administrative Services</b>              | 5000          | Principles of Business Administration and Management                 | 1       |
|  | 5050          | Principles of Accounting   | 1       |
|  | 5030          | Office Systems Management (Word/PowerPoint)                          | 1       |
|  | 5100          | Office Systems Management (Excel/Access)                             | 1       |
| <b>Business Management</b>                           | 5000          | Principles of Business Administration and Management                 | 1       |
|  | 5050          | Principles of Accounting   | 1       |
|  | 5160          | Advanced Business Management   | 1       |
| <b>Career Research and Development</b>               | 8650          | Career Research Development  | 1       |
|  | 8660          | Career Research Development Seminar                                  | 1       |
|  | 8665          | Work-Based Learning Experience                                       | 1       |
| <b>Computer Science</b>                              | 3505          | Foundations of Computer Science                                      | 1       |
|  | 3506          | AP Computer Science Principles                                       | 1       |
|  | 3511          | App Development  | 1       |
|  | 3519          | AP Computer Science Coding<br>OR Dual Enrollment (see 3519 for info) | 1       |
| <b>Criminal Justice / Law Enforcement</b>            | 2600          | American Criminal Justice System                                     | 1       |
|  | 2610          | Juvenile Justice   | 1       |
|  | 2620          | Criminal Law   | 1       |
|  | 2630          | Criminal Investigation   | 2       |
| <b>Naval Science/ NJROTC</b>                         | 7210          | Naval Science I  | 1       |
|  | 7220          | Naval Science II   | 1       |
|  | 7230          | Naval Science III  | 1       |
| <b>Project Lead the Way – Biomedical Sciences</b>    | 8025          | Principles of Biomedical Sciences                                    | 1       |
|  | 8026          | Human Body Systems   | 1       |
|  | 8027          | Medical Interventions  | 1       |
|  | 8028          | Biomedical Innovation  | 1       |
| <b>Project Lead the Way – Pathway to Engineering</b> | 8005          | Introduction to Engineering Design (Prerequisite course)             | 1       |
|  | 8006          | Principles of Engineering  | 1       |
|  | 8007          | Digital Electronics OR   | 1       |
|  | 8008          | Aerospace Engineering OR   |         |
|  | 8011          | Civil Engineering and Architecture                                   |         |
|  | 8009          | Engineering Design and Development                                   | 1       |
| <b>Teacher Academy of Maryland (TAM)</b>             | 5500          | Human Growth and Development through Adolescence                     | 1       |
|  | 5510          | Teaching as a Profession   | 1       |
|  | 5520          | Foundations of Curriculum and Instruction                            | 1       |
|  | 5530          | Education Academy Internship   | 1       |

The following programs are offered at the Career and Technology Academy (CTA):

| Program   | Course Number | Course Name   | Credits |
|---|---------------|---|---------|
| <b>Academy of Health Professions</b>                        | 8061          | Academy of Health Professions I                                       | 2       |
|   | 8071          | Academy of Health Professions II Track A (Medical Assisting)          | 3       |
|   | 8072          | OR Academy of Health Professions II Track B (Physical Rehabilitation) |         |
| <b>Automotive Service Technician</b>                        | 8941          | Service Technician I (Brakes, Steering, and Suspension)               | 2       |
|   | 8951          | Service Technician II   | 3       |
| <b>Carpentry &amp; Home Improvement</b>                     | 8871          | Carpentry & Home Improvement I  | 2       |
|   | 8881          | Carpentry & Home Improvement II                                       | 3       |
| <b>CISCO Networking &amp; Cybersecurity</b>                 | 8441          | Introduction to Network Engineering                                   | 2       |
|   | 8452          | CCNA and CyberOps   | 3       |
| <b>Cosmetology</b>  | 8360          | Cosmetology I   | 3       |
|   | 8371          | Cosmetology II  | 3       |
| <b>Culinary Arts</b>  | 8511          | Culinary Arts I   | 2       |
|   | 8521          | Culinary Arts II  | 3       |
| <b>Curriculum for Agricultural Science Education (CASE)</b> | 8035          | Intro. to Agriculture, Food, and Natural Resources (AFNR)             | 1       |
|   | 8036          | Principles of Agricultural Science – Animal (ASA)                     | 1       |
|   | 8037          | Animal and Plant Biotechnology (APB)                                  | 1       |
|   | 8038 or 8039  | Agricultural Business, Research, and Development (ARD)                | 1/2     |
| <b>Electricity</b>  | 8411          | Electricity I   | 2       |
|   | 8421          | Electricity II  | 3       |
| <b>Firefighter/Emergency Medical Tech</b>                   | 8994          | Emergency Medical Technician (EMT)                                    | 3       |
|   | 8998          | Firefighting  | 3       |
| <b>Graphic Arts</b>   | 8611          | Graphic Arts I  | 2       |
|   | 8621          | Graphic Arts II   | 3       |
| <b>Interactive Media Production</b>                         | 8631          | Interactive Media Production I  | 2       |
|   | 8641          | Interactive Media Production II                                       | 3       |
| <b>Plumbing, Heating, Ventilation, and Air Conditioning</b> | 8124          | Heating, Ventilation, and Air Conditioning I                          | 2       |
|   | 8125          | Heating, Ventilation, and Air Conditioning II                         | 3       |
| <b>Welding</b>  | 8911          | Welding I   | 2       |
|   | 8921          | Welding II  | 3       |



## Four Year Plans

As students prepare to enter high school, it is important that they make informed decisions about their proposed programs of study. To help students make sure that they are able to meet all graduation requirements, including completing a pathway, it is recommended that students, parents, and counselors work together to complete a **Four Year Plan**. This may seem overwhelming to an 8<sup>th</sup> grade student.

In order to make the process a little less difficult, the following pages provide examples of possible four year plans. There are two sample plans for each of the CTE programs. These samples include four year plans for students who wish to become dual completers (i.e., students who wish to complete a CTE pathway as well as the College Prep pathway). For three CTE programs (PLTW Engineering, PLTW Biomedical Sciences, and Teacher Academy of Maryland), only the dual completer four year plan is shown.

The plans shown are only samples. Within each program, there is room for variation. Also, students' four year plans can change as they progress through high school. However, by taking the time to carefully plan out each year's schedule ahead of time, students, parents, and counselors can ensure that all requirements are met.

**Academy of Health Professions  
Recommended Course Sequence**

Maryland Career Cluster 6: Health and Biosciences

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>                       | <b>12<sup>th</sup> Grade</b>                                     |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                          | Next appropriately rigorous math course                          |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate science course                    |  |
| <b>Social Studies</b>     | US History  | American Government  |  | World History  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                             |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                    |  |
| <b>CTE</b>                |   |  | <b>Academy of Health Professions I (2 credits)</b> | <b>Academy of Health Professions II Track A or B (3 credits)</b> |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                                 | Travel, Elective, or Work-Based Learning                         |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>  |
|---|--|
| Licensed Practical Nurse, Nurse Assistant, Massage Therapist, Physical Therapy Assistant, Occupational Therapy Assistant, Pharmacy Technician, Medical Lab Technician | Physician Assistant, Dietician/Nutritionist, Occupational Therapist, Medical Technician, Surgical Technician, Registered Nurse, Chiropractor, Pharmacist, Audiologist, Speech and Language Pathologist |

**Academy of Health Professions Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 6: Health and Biosciences

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>                       | <b>12<sup>th</sup> Grade</b>                                     |
|---------------------------|---|---|--|--|
| <b>English</b>            | English   | English   | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus                          | Next appropriately rigorous math course                          |
| <b>Science</b>            | Biology   | Next appropriate Science Course   | Next appropriate Science course                    | Science Elective   |
| <b>Social Studies</b>     | US History  | American Government   |  | World History  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)                             |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |  |  |
| <b>Fine Arts</b>          |   | Art or Music  |  |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)                    |  |
| <b>CTE</b>                |   |   | <b>Academy of Health Professions I (2 credits)</b> | <b>Academy of Health Professions II Track A or B (3 credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Careers (1/2 credit) | Travel or Elective                                 |  |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>  |
|---|--|
| Licensed Practical Nurse, Nurse Assistant, Massage Therapist, Physical Therapy Assistant, Occupational Therapy Assistant, Pharmacy Technician, Medical Lab Technician | Physician Assistant, Dietician/Nutritionist, Occupational Therapist, Medical Technician, Surgical Technician, Registered Nurse, Chiropractor, Pharmacist, Audiologist, Speech and Language Pathologist |

**Accounting  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                             | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|--|---------------------------------|--|
| <b>English</b>            | English   | English  | English                         | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                                   | Algebra II or Precalculus       | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course                          | Next appropriate Science course | Science Elective OR  |
| <b>Social Studies</b>     | US History  | American Government                                      | World History                   | Social Studies Elective  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |  |
| <b>Fine Arts</b>          | Art or Music  |  |                                 |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                |   | <b>Principles of Business Admin and Management</b>       | <b>Principles of Accounting</b> | <b>Advanced Accounting</b>   |
| <b>Electives</b>          |   | Computer Keyboarding for College and Career (1/2 credit) | 1 Elective                      | Advanced Business Management, AP Economics, Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Accounting Clerk, Bookkeeper, Payroll Clerk, Accounts Payable/Receivable Clerk, Bank Teller, Loan Processor, Claims Adjustor | Accountant, Credit Analyst, Investment Banker, Financial Analyst, Budget Analyst, Auditor, Tax Analyst, Investment Advisor |

**Accounting Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|--|---------------------------------|--|
| <b>English</b>            | English   | English  | English                         | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus       | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course | Science Elective OR  |
| <b>Social Studies</b>     | US History  | American Government  | World History                   | Social Studies Elective  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |  |
| <b>Fine Arts</b>          |   |  | Art or Music                    |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                |   | <b>Principles of Business Admin and Management</b>                             | <b>Principles of Accounting</b> | <b>Advanced Accounting</b>   |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) |                                 | Advanced Business Management, AP Economics, Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Accounting Clerk, Bookkeeper, Payroll Clerk, Accounts Payable/Receivable Clerk, Bank Teller, Loan Processor, Claims Adjustor | Accountant, Credit Analyst, Investment Banker, Financial Analyst, Budget Analyst, Auditor, Tax Analyst, Investment Advisor |

## Apprenticeship Maryland Recommended Course Sequence

Maryland Career Cluster: Various, Depending on Apprenticeship Placement

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade  | 12 <sup>th</sup> Grade   |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government  | World History   |  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  |   | <b>Apprenticeship Maryland Related Technical Instruction (1) Apprenticeship Maryland Work-based learning experience I, II, and III</b> |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | 2 Electives, specific to student interests/related to apprenticeship placement. | Additional electives as schedule allows.   |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options are based specifically upon the Apprenticeship Placement. The apprenticeship will prepare students for a specific industry or career.

## Apprenticeship Maryland Dual Completer Recommended Course Sequence

Maryland Career Cluster: Various, Depending on Apprenticeship Placement

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|---|---|--|
| <b>English</b>            | English   | English   | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course   | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government   | World History   |  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |   |  |
| <b>Fine Arts</b>          |   | Art or Music  |   |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |   |   | <b>Apprenticeship Maryland Related Technical Instruction (1) Apprenticeship Maryland Work-based learning experience I, II, and III</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Careers (1/2 credit) | 2 Electives, specific to student interests/related to apprenticeship placement. | Additional Electives as schedule allows, specific to student interest/related to apprenticeship placement.                             |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options are based specifically upon the Apprenticeship Placement. The apprenticeship will prepare students for a specific industry or career.

**Automotive Service Technician  
Recommended Course Sequence**

Maryland Career Cluster 10: Transportation Technologies

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>            | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English                                 | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus               | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course         |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)         |  |
| <b>CTE</b>                |   |  | <b>Service Technician I (2 Credits)</b> | <b>Service Technician II (3 Credits)</b> |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit)<br><br>Elective | Travel or Elective                      | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Parts Manager, Automotive Technician, Collision Repair Technician, Fleet Maintenance Manager | Mechanical Engineer, Design Engineer, Structural Engineer, Manufacturing Engineer, Civil Engineer |



**Automotive Service Technician Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 10: Transportation Technologies

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>            | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|---|---|--|
| <b>English</b>            | English   | English   | English                                 | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus               | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course                                       | Next appropriate Science course         |  |
| <b>Social Studies</b>     | US History  | American Government   |   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)                  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |   |  |
| <b>Fine Arts</b>          |   | Art or Music  |   |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)         |  |
| <b>CTE</b>                |   |   | <b>Service Technician I (2 Credits)</b> | <b>Service Technician II (3 Credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Keyboarding for College and Career (1/2 credit) | Travel or Elective                      | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Parts Manager, Automotive Technician, Collision Repair Technician, Fleet Maintenance Manager | Mechanical Engineer, Design Engineer, Structural Engineer, Manufacturing Engineer, Civil Engineer |

**Business Administrative Services  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>                         | <b>12<sup>th</sup> Grade</b>                                 |
|---------------------------|---|---|--|--|
| <b>English</b>            | English   | English   | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus                            | Next appropriately rigorous math course                      |
| <b>Science</b>            | Biology   | Next appropriate Science course   | Next appropriate Science course                      | Science Elective   |
| <b>Social Studies</b>     | US History  | American Government   | World History  |  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)                               |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |  |  |
| <b>Fine Arts</b>          |   |   | Art or Music   |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)                      |  |
| <b>CTE</b>                |   | <b>Principles of Business Administration</b><br><b>Principles of Accounting</b> | <b>Office Systems Management (Word / PowerPoint)</b> | <b>Office Systems Management (Excel/Access)</b>              |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit)                        |  | Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Management Trainee, Executive Assistant, Supervisor, Small Business Manager, Payroll Clerk, Accounting Clerk, Bookkeeper, Office Manager, Secretary, Data Entry Specialist, Insurance Industry | Branch Manager, Project Manager, Operations Manager, Training, Accountant, Credit Analyst, Budget Analyst, Financial Analyst, Loan Officer, Banking Industry |

**Business Administrative Services Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>                         | <b>12<sup>th</sup> Grade</b>                                 |
|---------------------------|---|---|--|--|
| <b>English</b>            | English   | English   | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus                            | Next appropriately rigorous math course                      |
| <b>Science</b>            | Biology   | Next appropriate Science course   | Next appropriate Science course                      | Science Elective OR  |
| <b>Social Studies</b>     | US History  | American Government   | World History  | Social Studies Elective                                      |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)                               |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |  |  |
| <b>Fine Arts</b>          |   |   | Art or Music   |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)                      |  |
| <b>CTE</b>                |   | <b>Principles of Business Administration</b><br><br><b>Principles of Accounting</b> | <b>Office Systems Management (Word / PowerPoint)</b> | <b>Office Systems Management (Excel/Access)</b>              |
| <b>Electives</b>          | World Language                                      | World Language  |  | Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Management Trainee, Executive Assistant, Supervisor, Small Business Manager, Payroll Clerk, Accounting Clerk, Bookkeeper, Office Manager, Secretary, Data Entry Specialist, Insurance Industry | Branch Manager, Project Manager, Operations Manager, Training, Accountant, Credit Analyst, Budget Analyst, Financial Analyst, Loan Officer, Banking Industry |

**Business Management  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                             | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>  |
|---------------------------|---|--|---------------------------------|---|
| <b>English</b>            | English   | English  | English                         | English   |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                                   | Algebra II or Precalculus       | Next appropriately rigorous math course   |
| <b>Science</b>            | Biology   | Next appropriate Science course                          | Next appropriate Science course | Science Elective<br>OR  |
| <b>Social Studies</b>     | US History  | American Government                                      | World History                   | Social Studies Elective   |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |   |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |   |
| <b>Fine Arts</b>          |   |  | Art or Music                    |   |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |   |
| <b>CTE</b>                |   | <b>Principles of Business Admin and Management</b>       | <b>Principles of Accounting</b> | <b>Advanced Business Management</b>   |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit) |                                 | Advanced Accounting, AP Economics, Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>  |
|---|--|
| Management Trainee, Executive Assistant, Supervisor, Small Business Manager, Human Resource Clerk, Sales Representative, Office Manager | Accountant, Credit Analyst, Investment Banker, Financial Analyst, Budget Analyst, Auditor, Tax Analyst, Investment Advisor |

**Business Management Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 2: Business Management and Finance

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                       | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>  |
|---------------------------|---|--|---------------------------------|---|
| <b>English</b>            | English   | English  | English                         | English   |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                             | Algebra II or Precalculus       | Next appropriately rigorous math course   |
| <b>Science</b>            | Biology   | Next appropriate Science course                    | Next appropriate Science course | Science Elective OR   |
| <b>Social Studies</b>     | US History  | American Government                                | World History                   | Social Studies Elective   |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |   |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |   |
| <b>Fine Arts</b>          |   |  | Art or Music                    |   |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |   |
| <b>CTE</b>                |   | <b>Principles of Business Admin and Management</b> | <b>Principles of Accounting</b> | <b>Advanced Business Management</b>   |
| <b>Electives</b>          | World Language                                      | World Language                                     |                                 | Advanced Accounting, AP Economics, Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>  |
|---|--|
| Management Trainee, Executive Assistant, Supervisor, Small Business Manager, Human Resource Clerk, Sales Representative, Office Manager | Accountant, Credit Analyst, Investment Banker, Financial Analyst, Budget Analyst, Auditor, Tax Analyst, Investment Advisor |

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**Career Research and Development  
Recommended Course Sequence**

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>           | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English                                | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus              | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course        | Science Elective OR  |
| <b>Social Studies</b>     | US History  | American Government  | World History                          | Social Studies Elective  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                 |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)        |  |
| <b>CTE</b>                |   |  | <b>Career Research and Development</b> | <b>Career Research and Development Seminar</b><br><br><b>Work-Based Learning Experience (1 or 2 credits)</b> |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit)<br><br>Elective | 1 Elective                             | Work-Based Learning additional credit if required for graduation.  |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

## Carpentry & Home Improvement Recommended Course Sequence

Maryland Career Cluster 3: Construction and Development

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade                                | 12 <sup>th</sup> Grade                                 |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                             | Next appropriately rigorous math course                |
| <b>Science</b>            | Biology   | Matter and Energy or Chemistry   | Earth Science or Physics                              |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                                |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                       |  |
| <b>CTE</b>                |   |  | <b>Carpentry &amp; Home Improvement I (2 credits)</b> | <b>Carpentry &amp; Home Improvement II (3 credits)</b> |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit)<br><br>Elective | Travel or Elective                                    | Travel, Elective, or Work-Based Learning               |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

### Sample Career Options

| With an Associate's Degree  | With a Bachelor's Degree  |
|---|---|
| Carpenter, Construction Manager, Civil Engineering Technician, Building Code Inspector, Real Estate Manager, Facilities Manager | Land Surveyor, Civil Engineer, Environmental Engineer, Engineer (all types), Project Manager, Cost Estimator, Specifications Writer |

### Carpentry & Home Improvement Dual Completer



## Recommended Course Sequence

### Maryland Career Cluster 3: Construction and Development

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade                                | 12 <sup>th</sup> Grade                                 |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                             | Next appropriately rigorous math course                |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course                       |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                                |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                       |  |
| <b>CTE</b>                |   |  | <b>Carpentry &amp; Home Improvement I (2 credits)</b> | <b>Carpentry &amp; Home Improvement II (3 credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                                    | Travel, Elective, or Work-Based Learning               |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

### Sample Career Options

| With an Associate's Degree  | With a Bachelor's Degree  |
|---|---|
| Carpenter, Construction Manager, Civil Engineering Technician, Building Code Inspector, Real Estate Manager, Facilities Manager | Land Surveyor, Civil Engineer, Environmental Engineer, Engineer (all types), Project Manager, Cost Estimator, Specifications Writer |

**CISCO Networking & Cybersecurity  
Recommended Course Sequence**

Maryland Career Cluster 8: Information Technology

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>                           | <b>12<sup>th</sup> Grade</b>                   |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                              | Next appropriately rigorous math course        |
| <b>Science</b>            | Biology   | Matter and Energy or Chemistry   | Earth Science or Physics                               |  |
| <b>Social Studies</b>     | US History  | American Government  |  | World History                                  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                                 |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                        |  |
| <b>CTE</b>                |   |  | <b>Introduction to Network Engineering (2 Credits)</b> | <b>CCNA and CyberOps Associate (3 Credits)</b> |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit)<br><br>Elective | Travel or Elective                                     | Travel, Elective, or Work-Based Learning       |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Computer Technician, Network Technician, Cabling Technician, PC Support Technician, Network Analyst, Applications Support Specialist, Applications Support Analyst | Network administrator, Project Manager, Technical Writer/Editor, Product Support Engineer, Operations System Analyst, Systems Technical Support Specialist, Quality Assurance Manager |

**CISCO Networking & Cybersecurity Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 8: Information Technology

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>                           | <b>12<sup>th</sup> Grade</b>                   |
|---------------------------|---|---|--|--|
| <b>English</b>            | English   | English   | English  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II  | Algebra II or Precalculus                              | Next appropriately rigorous math course        |
| <b>Science</b>            | Biology   | Next appropriate Science course                                       | Next appropriate Science course                        |  |
| <b>Social Studies</b>     | US History  | American Government   |  | World History                                  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |   | Health II (1/2 credit)                                 |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |   |  |  |
| <b>Fine Arts</b>          |   | Art or Music  |  |  |
| <b>Financial Literacy</b> |   |   | Financial Literacy (1/2 credit)                        |  |
| <b>CTE</b>                |   |   | <b>Introduction to Network Engineering (2 Credits)</b> | <b>CCNA and CyberOps Associate (3 Credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Keyboarding for College and Career (1/2 credit) | Travel or Elective                                     | Travel, Elective, or Work-Based Learning       |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Computer Technician, Network Technician, Cabling Technician, PC Support Technician, Network Analyst, Applications Support Specialist, Applications Support Analyst | Network administrator, Project Manager, Technical Writer/Editor, Product Support Engineer, Operations System Analyst, Systems Technical Support Specialist, Quality Assurance Manager |

**Computer Science  
Recommended Course Sequence**

Maryland Career Cluster 8: Information Technology

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                             | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>  |
|---------------------------|---|--|---------------------------------|---|
| <b>English</b>            | English   | English  | English                         | English   |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                                   | Algebra II or Precalculus       | Next appropriately rigorous math course   |
| <b>Science</b>            | Biology   | Next appropriate Science course                          | Next appropriate science course | Science Elective<br>OR  |
| <b>Social Studies</b>     | US History  | American Government                                      | World History                   | Social Studies Elective   |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |   |
| <b>Tech Ed</b>            | IED or FOT  |  |                                 |   |
| <b>Fine Arts</b>          |   | Art or Music   |                                 |   |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |   |
| <b>CTE</b>                | <b>Foundations of Computer Science</b>              | <b>AP Computer Science Principles</b>                    | <b>App Development</b>          | <b>AP Computer Science Coding or Dual Enrollment Options at CSM:<br/>ITS 1020 Operating Systems Concepts or ITS 2940 Cyber Ethics</b> |
| <b>Electives</b>          |   | Computer Keyboarding for College and Career (1/2 credit) | 1 Elective                      | Elective, Work-Based Learning, and/or Dual Enrollment at CSM  |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Software Developer, Systems Engineer, Systems Analyst, Systems Administrator | Software Applications Developer, Network Systems Administrator, Database Administrator, Web Developer, Computer Programmer |

## Computer Science Dual Completer Recommended Course Sequence

Maryland Career Cluster 8: Information Technology

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade                | 11 <sup>th</sup> Grade                                   | 12 <sup>th</sup> Grade  |
|---------------------------|---|---------------------------------------|--|---|
| <b>English</b>            | English   | English                               | English  | English   |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                | Algebra II or Precalculus                                | Next appropriately rigorous math course   |
| <b>Science</b>            | Biology   | Next appropriate Science course       | Next appropriate Science course                          | Science Elective<br>OR  |
| <b>Social Studies</b>     | US History  | American Government                   | World History  | Social Studies Elective   |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |                                       | Health II (1/2 credit)                                   |   |
| <b>Tech Ed</b>            | <i>Fulfilled by pathway</i>                         |                                       |  |   |
| <b>Fine Arts</b>          |   | Art or Music                          |  |   |
| <b>Financial Literacy</b> |   |                                       | Financial Literacy (1/2 credit)                          |   |
| <b>CTE</b>                | <b>Foundations of Computer Science</b>              | <b>AP Computer Science Principles</b> | <b>App Development</b>                                   | <b>AP Computer Science Coding or Dual Enrollment Options at CSM:<br/>ITS 1020 Operating Systems Concepts or ITS 2940 Cyber Ethics</b> |
| <b>Electives</b>          | World Language                                      | World Language                        | Computer Keyboarding for College and Career (1/2 credit) | Elective, Work-Based Learning, and/or Dual Enrollment at CSM  |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

### Sample Career Options

| With an Associate's Degree   | With a Bachelor's Degree   |
|--|--|
| Software Developer, Systems Engineer, Systems Analyst, Systems Administrator | Software Applications Developer, Network Systems Administrator, Database Administrator, Web Developer, Computer Programmer |

**Cosmetology  
Recommended Course Sequence**

Maryland Career Cluster 4: Consumer Services, Hospitality, and Tourism

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>Cosmetology I (3 credits)</b>  | <b>Cosmetology II (3 credits)</b>        |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | If Travel required, students will need to take Health II and Financial Literacy online. | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>                             |
|---|---|
| Department Manager, Branch Manager, Sales Associate, Cosmetologist, Salon Manager | General/Regional Manager, Branch Manager, Territory Manager |

**Cosmetology Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 4: Consumer Services, Hospitality, and Tourism

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>Cosmetology I (3 credits)</b>  | <b>Cosmetology II (3 credits)</b>        |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | If Travel required, students will need to take Health II and Financial Literacy online. | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>                             |
|---|---|
| Department Manager, Branch Manager, Sales Associate, Cosmetologist, Salon Manager | General/Regional Manager, Branch Manager, Territory Manager |

**Criminal Justice  
Recommended Course Sequence**

Maryland Career Cluster 7: Human Resource Services

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                             | <b>11<sup>th</sup> Grade</b>             | <b>12<sup>th</sup> Grade</b>                                 |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English                                  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                                   | Algebra II or Precalculus                | Next appropriately rigorous math course                      |
| <b>Science</b>            | Biology   | Next appropriate Science course                          | Next appropriate science course          | Science Elective   |
| <b>Social Studies</b>     | US History  | American Government                                      | World History                            | Social Studies Elective                                      |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                   |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)          |  |
| <b>CTE</b>                |   | <b>American Criminal Justice Systems</b>                 | <b>Juvenile Justice<br/>Criminal Law</b> | <b>Criminal Investigation (2 credits)</b>                    |
| <b>Electives</b>          | Elective  | Computer Keyboarding for College and Career (1/2 credit) |  | Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Police Officer, Court Clerk, Crime Technician, Dispatch/Communications Officer, Security Officer (Public or Private), Corrections Officer | Parole Officer, Case Manager, Counselor, Forensic Scientist, Police Agent, Air Marshall, Customs Officer, Homeland Security Agent |



**Criminal Justice Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 7: Human Resource Services

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>             | <b>11<sup>th</sup> Grade</b>             | <b>12<sup>th</sup> Grade</b>                                 |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English                                  | English                                  | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                   | Algebra II or Precalculus                | Next appropriately rigorous math course                      |
| <b>Science</b>            | Biology   | Next appropriate Science course          | Next appropriate Science course          | Science Elective   |
| <b>Social Studies</b>     | US History  | American Government                      | World History                            | Social Studies Elective                                      |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                   |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music                             |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)          |  |
| <b>CTE</b>                |   | <b>American Criminal Justice Systems</b> | <b>Juvenile Justice<br/>Criminal Law</b> | <b>Criminal Investigation (2 credits)</b>                    |
| <b>Electives</b>          | World Language                                      | World Language                           |  | Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Police Officer, Court Clerk, Crime Technician, Dispatch/Communications Officer, Security Officer (Public or Private), Corrections Officer | Parole Officer, Case Manager, Counselor, Forensic Scientist, Police Agent, Air Marshall, Customs Officer, Homeland Security Agent |

**Culinary Arts  
Recommended Course Sequence**

Maryland Career Cluster 4: Consumer Services, Hospitality, and Tourism

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>       | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|------------------------------------|--|
| <b>English</b>            | English   | English  | English                            | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus          | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course    |  |
| <b>Social Studies</b>     | US History  | American Government  |                                    | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)             |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                    |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                    |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)    |  |
| <b>CTE</b>                |   |  | <b>Culinary Arts I (2 credits)</b> | <b>Culinary Arts II (3 credits)</b>      |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                 | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Restaurant Owner, Sales Manager, Host/Hostess, Chief, Kitchen Manager, Maitre d` | General Manager, Food Services Manager, Executive Chef, Menu Planner, Nutritionist, Registered Dietitian |

**Culinary Arts Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 4: Consumer Services, Hospitality, and Tourism

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>       | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|------------------------------------|--|
| <b>English</b>            | English   | English  | English                            | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus          | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course    |  |
| <b>Social Studies</b>     | US History  | American Government  |                                    | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)             |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                    |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                    |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)    |  |
| <b>CTE</b>                |   |  | <b>Culinary Arts I (2 credits)</b> | <b>Culinary Arts II (3 credits)</b>      |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                 | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Restaurant Owner, Sales Manager, Host/Hostess, Chief, Kitchen Manager, Maitre d' | General Manager, Food Services Manager, Executive Chef, Menu Planner, Nutritionist, Registered Dietitian |

**Curriculum for Agricultural Science Education (CASE)  
Recommended Course Sequence**

Maryland Career Cluster 5: Environmental, Agriculture, and Natural Resources

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                             | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II                                   | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate science course                          | Next appropriate science course   |  |
| <b>Social Studies</b>     | US History  | American Government                                      |   | World History  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>CASE I:<br/>Intro to Agriculture, Food, and Natural Resources and Principles of Agricultural Sciences – Animal (2 credits)</b> | <b>CASE II:<br/>Animal and Plant Biotechnology and Agricultural Business, Research and Development (3 credits)</b> |
| <b>Electives</b>          |   | Computer Keyboarding for College and Career (1/2 credit) | Additional elective if space allows   | Additional Science if Space allows   |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Food Safety Inspector, Agricultural Inspector, Animal Shelter Manager, Animal Breeder, Agricultural Marketing Representative | Forest Conservationist, Food Scientist, Soil Scientist, Veterinarian, Plant Scientist, Sustainable Biomaterials Specialist, Water Resources Scientist |

**Curriculum for Agricultural Science Education (CASE) Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 5: Environmental, Agriculture, and Natural Resources

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>                                     | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>   |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus   | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course (AP Environmental Sci suggested) | Next appropriate Science course   | Science Elective   |
| <b>Social Studies</b>     | US History  | American Government  | World History   |  |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>CASE I:<br/>Intro to Agriculture, Food, and Natural Resources and Principles of Agricultural Sciences – Animal (2 credits)</b> | <b>CASE II:<br/>Animal and Plant Biotechnology and Agricultural Business, Research and Development (3 credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language   |   | Elective, Work-Based Learning, and/or Dual Enrollment at CSM   |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate’s Degree</b>  | <b>With a Bachelor’s Degree</b>   |
|--|---|
| Food Safety Inspector, Agricultural Inspector, Animal Shelter Manager, Animal Breeder, Agricultural Marketing Representative | Forest Conservationist, Food Scientist, Soil Scientist, Veterinarian, Plant Scientist, Sustainable Biomaterials Specialist, Water Resources Scientist |

**Electricity**

## Recommended Course Sequence

### Maryland Career Cluster 3: Construction and Development

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade           | 12 <sup>th</sup> Grade                   |
|---------------------------|---|--|----------------------------------|--|
| <b>English</b>            | English   | English  | English                          | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus        | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course  |  |
| <b>Social Studies</b>     | US History  | American Government  |                                  | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)           |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                  |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)  |  |
| <b>CTE</b>                |   |  | <b>Electricity I (2 credits)</b> | <b>Electricity II (3 credits)</b>        |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective               | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

#### Sample Career Options

| With an Associate's Degree   | With a Bachelor's Degree  |
|--|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Electrician, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |

**Electricity Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 3: Construction and Development

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>     | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|----------------------------------|--|
| <b>English</b>            | English   | English  | English                          | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus        | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course  |  |
| <b>Social Studies</b>     | US History  | American Government  |                                  | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)           |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                  |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)  |  |
| <b>CTE</b>                |   |  | <b>Electricity I (2 credits)</b> | <b>Electricity II (3 credits)</b>        |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective               | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Electrician, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |

**Firefighter / Emergency Medical Technician  
Recommended Course Sequence**

Maryland Career Cluster 7: Human Resource Services

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>            |
|---------------------------|---|--|---|---|
| <b>English</b>            | English   | English  | English   | English                                 |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus   | Next appropriately rigorous math course |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |   |
| <b>Social Studies</b>     | US History  | American Government  |   | World History                           |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)  |   |
| <b>Tech Ed</b>            | FoCS, IED, or FOT                                   |  |   |   |
| <b>Fine Arts</b>          |   | Art or Music   |   |   |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |   |
| <b>CTE</b>                |   |  | <b>EMT (3 credits)</b>  | <b>Firefighting (3 credits)</b>         |
| <b>Electives</b>          | Elective  | Elective of choice recommended:<br>Principles of Biomedical Sciences<br><br>Computer Keyboarding for College and Career (1/2 credit) | (Students requiring travel should take Financial Literacy and Health II online) | Travel or Elective                      |

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Sample Career Options

| <b>With an Associate's Degree</b> | <b>With a Bachelor's Degree</b>  |
|-----------------------------------|--|
| Firefighter, EMT, Paramedic       | Fire Marshall, Fire Investigator, Smoke Jumper, Captain, Fire Chief, Assistant Chief, Lieutenant |



**Firefighter / Emergency Medical Technician Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 7: Human Resource Services

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>   | <b>12<sup>th</sup> Grade</b>            |
|---------------------------|---|--|--|---|
| <b>English</b>            | English   | English  | English  | English                                 |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus  | Next appropriately rigorous math course |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course  |   |
| <b>Social Studies</b>     | US History  | American Government  |  | World History                           |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)   |   |
| <b>Tech Ed</b>            | FoCS, IED, or FOT                                   |  |  |   |
| <b>Fine Arts</b>          |   | Art or Music   |  |   |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)  |   |
| <b>CTE</b>                |   |  | <b>EMT (3 credits)</b>   | <b>Firefighting (3 credits)</b>         |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective (Students requiring travel should take Financial Literacy and Health II online) | Travel or Elective                      |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b> | <b>With a Bachelor's Degree</b>  |
|-----------------------------------|--|
| Firefighter, EMT, Paramedic       | Fire Marshall, Fire Investigator, Smoke Jumper, Captain, Fire Chief, Assistant Chief, Lieutenant |

## Graphic Arts Recommended Course Sequence

Maryland Career Cluster 1: Arts, Media, and Communication

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade            | 12 <sup>th</sup> Grade                   |
|---------------------------|---|--|-----------------------------------|--|
| <b>English</b>            | English   | English  | English                           | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus         | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government  |                                   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)            |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                   |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>Graphic Arts I (2 credits)</b> | <b>Graphic Arts II (3 credits)</b>       |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

### Sample Career Options

| With an Associate's Degree   | With a Bachelor's Degree  |
|--|---|
| Cartoonist, Fashion Artist, Photographer, Sketch Artist, Craftsperson, Illustrator, Exhibition Installer, Interior Design, Graphic Design, Desktop Publishing, Digital Image Specialist, Advertising Layout Designer | Textile Designer, Conservator, Animator<br>Museum Director, Gallery Manager,<br>Fine Artist (i.e., painting, sculpture, ceramics),<br>Advertising Manager, Publicist,<br>Communications Manager |

**Graphic Arts Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 1: Arts, Media, and Communication

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>      | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|-----------------------------------|--|
| <b>English</b>            | English   | English  | English                           | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus         | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course   |  |
| <b>Social Studies</b>     | US History  | American Government  |                                   | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)            |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                   |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)   |  |
| <b>CTE</b>                |   |  | <b>Graphic Arts I (2 credits)</b> | <b>Graphic Arts II (3 credits)</b>       |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>   |
|--|---|
| Cartoonist, Fashion Artist, Photographer, Sketch Artist, Craftsperson, Illustrator, Exhibition Installer, Interior Design, Graphic Design, Desktop Publishing, Digital Image Specialist, Advertising Layout Designer | Textile Designer, Conservator, Animator<br>Museum Director, Gallery Manager,<br>Fine Artist (i.e., painting, sculpture, ceramics),<br>Advertising Manager, Publicist,<br>Communications Manager |

**Interactive Media Production  
Recommended Course Sequence**

Maryland Career Cluster 1: Arts, Media, and Communication

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>           | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English                                | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus              | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course        |  |
| <b>Social Studies</b>     | US History  | American Government  |  | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                 |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)        |  |
| <b>CTE</b>                |   |  | <b>Interactive Media I (2 credits)</b> | <b>Interactive Media II (3 credits)</b>  |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                     | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Audio Visual Technician, Character Animator, Photographer, Production Manager, Social Media Coordinator, Sound Mixer | Film Producer, Graphic Designer, Journalist, Multimedia Artist, Screenwriter, Videographer, Web Master |

**Interactive Media Production Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 1: Arts, Media, and Communication

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>                      | <b>12<sup>th</sup> Grade</b>                       |
|---------------------------|---|--|---|--|
| <b>English</b>            | English   | English  | English   | English  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                         | Next appropriately rigorous math course            |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course                   |  |
| <b>Social Studies</b>     | US History  | American Government  |   | World History                                      |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                            |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |   |  |
| <b>Fine Arts</b>          |   | Art or Music   |   |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                   |  |
| <b>CTE</b>                |   |  | <b>Interactive Media Production I (2 credits)</b> | <b>Interactive Media Production II (3 credits)</b> |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                                | Travel, Elective, or Work-Based Learning           |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>  | <b>With a Bachelor's Degree</b>  |
|--|--|
| Audio Visual Technician, Character Animator, Photographer, Production Manager, Social Media Coordinator, Sound Mixer | Film Producer, Graphic Designer, Journalist, Multimedia Artist, Screenwriter, Videographer, Web Master |

**Naval Science/NJROTC  
Recommended Course Sequence**

Maryland Career Cluster 1: Arts, Media, and Communication

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>    | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>            |
|---------------------------|---|---------------------------------|---------------------------------|---|
| <b>English</b>            | English   | English                         | English                         | English                                 |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II          | Algebra II or Precalculus       | Next appropriately rigorous math course |
| <b>Science</b>            | Biology   | Next appropriate Science course | Next appropriate Science course | Science Elective<br>OR                  |
| <b>Social Studies</b>     | US History  | American Government             | World History                   | Social Studies Elective                 |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |                                 | Health II (1/2 credit)          |   |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |                                 |                                 |   |
| <b>Fine Arts</b>          |   | Art or Music                    |                                 |   |
| <b>Financial Literacy</b> |   |                                 | Financial Literacy (1/2 credit) |   |
| <b>CTE</b>                | <b>Naval Science I</b>                              | <b>Naval Science II</b>         | <b>Naval Science III</b>        |   |
| <b>Electives</b>          |   | Elective                        | Elective                        | Naval Science IV and/or other Electives |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

**Sample Career Options**

The skills developed in the NJROTC program will support many college and career opportunities. Not all students will seek to join a branch of service upon graduation.

High school graduates and students with Associate's degrees can choose from about 120 to 190 enlisted job specialties depending on the branch of service. There are programs available to complete a Bachelor's degree and seek a commission once they are in the military. The enlisted career fields are a wide range of jobs.

If a candidate already has a Bachelor's degree he/she may seek that route and be commissioned through Officer Candidate School. For high school students, they may also seek the commissioned route through one of the service academies or ROTC at a participating university. There is a wide variety of officer jobs in the military.

**Naval Science/NJROTC Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 1: Arts, Media, and Communication

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b> | <b>12<sup>th</sup> Grade</b>            |
|---------------------------|---|--------------------------------|------------------------------|---|
| <b>English</b>            | English   | English                        | English                      | English                                 |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II         | Algebra II or Precalculus    | Next appropriately rigorous math course |
| <b>Science</b>            | Biology   | Matter and Energy or Chemistry | Earth Science or Physics     | Science Elective<br>OR                  |
| <b>Social Studies</b>     | US History  | American Government            | World History                | Social Studies Elective                 |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |                                |                              | Health II (1/2 credit)                  |
| <b>Tech Ed</b>            |   |                                | FoCS, IED or FOT             |   |
| <b>Fine Arts</b>          |   | Art or Music                   |                              |   |
| <b>Financial Literacy</b> |   |                                |                              | Financial Literacy (1/2 credit)         |
| <b>CTE</b>                | <b>Naval Science I</b>                              | <b>Naval Science II</b>        | <b>Naval Science III</b>     |   |
| <b>Electives</b>          | World Language                                      | World Language                 | World Language               | Naval Science IV or Elective            |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

**Sample Career Options**

The skills developed in the NJROTC program will support many college and career opportunities. Not all students will seek to join a branch of service upon graduation.

High school graduates and students with Associate's degrees can choose from about 120 to 190 enlisted job specialties depending on the branch of service. There are programs available to complete a Bachelor's degree and seek a commission once they are in the military. The enlisted career fields are a wide range of jobs.

If a candidate already has a Bachelor's degree he/she may seek that route and be commissioned through Officer Candidate School. For high school students, they may also seek the commissioned route through one of the service academies or ROTC at a participating university. There is a wide variety of officer jobs in the military.

**Plumbing, Heating, Ventilation, and Air Conditioning  
Recommended Course Sequence**

Maryland Career Cluster 3: Construction and Development

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|---------------------------------|--|
| <b>English</b>            | English   | English  | English                         | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus       | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course |  |
| <b>Social Studies</b>     | US History  | American Government  |                                 | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                 |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                |   |  | <b>HVAC I (2 credits)</b>       | <b>HVAC II (3 credits)</b>               |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective              | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |



**Plumbing, Heating, Ventilation, and Air Conditioning Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 3: Construction and Development

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|---------------------------------|--|
| <b>English</b>            | English   | English  | English                         | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus       | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course |  |
| <b>Social Studies</b>     | US History  | American Government  |                                 | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            | FoCS, IED, or FOT                                   |  |                                 |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                 |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                |   |  | <b>HVAC I (2 credits)</b>       | <b>HVAC II (3 credits)</b>               |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective              | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |

**Project Lead the Way Biomedical Sciences Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 6: Health and Biosciences

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b> | <b>11<sup>th</sup> Grade</b>    | <b>12<sup>th</sup> Grade</b>                                 |
|---------------------------|---|------------------------------|---------------------------------|--|
| <b>English</b>            | English   | English                      | English                         | English  |
| <b>Math</b>               | Geometry  | Algebra II                   | Precalculus                     | AP Calculus I  |
| <b>Science</b>            | Biology   | Chemistry                    | Physics                         | AP Science with lab recommended (2 credits)                  |
| <b>Social Studies</b>     | US History  | American Government          | World History                   | Social Studies Elective                                      |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |                              | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            |   |                              | FoCS, IED or FOT                |  |
| <b>Fine Arts</b>          |   | Art or Music                 |                                 |  |
| <b>Financial Literacy</b> |   |                              | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                | <b>Principles of Biomedical Science</b>             | <b>Human Body Systems</b>    | <b>Medical Interventions</b>    | <b>Biomedical Innovations</b>                                |
| <b>Electives</b>          | World Language                                      | World Language               |                                 | Elective, Work-Based Learning, and/or Dual Enrollment at CSM |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Psychiatric Assistant, Medical Assistant, Pharmacy Technician, Phlebotomist, EMT, Veterinary Technician, Dental Assistant | Biomedical Engineer, Biologist, General Practitioner, Forensic Scientist, Geneticist, Surgeon |

**Project Lead the Way Pathway to Engineering Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 9: Manufacturing, Engineering, and Technology

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>     | <b>11<sup>th</sup> Grade</b>  | <b>12<sup>th</sup> Grade</b>                |
|---------------------------|---|----------------------------------|---|---|
| <b>English</b>            | English   | English                          | English   | English                                     |
| <b>Math</b>               | Geometry  | Algebra II                       | Precalculus   | AP Calculus I                               |
| <b>Science</b>            | Biology   | Chemistry                        | Physics   | AP Science with lab recommended (2 credits) |
| <b>Social Studies</b>     | US History  | American Government              | World History   | Social Studies Elective                     |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |                                  | Health II (1/2 credit)  |   |
| <b>Tech Ed</b>            | <b>Introduction to Engineering Design</b>           |                                  |   |   |
| <b>Fine Arts</b>          |   | Art or Music                     |   |   |
| <b>Financial Literacy</b> |   |                                  | Financial Literacy (1/2 credit)   |   |
| <b>CTE</b>                |   | <b>Principles of Engineering</b> | <b>Digital Electronics, Civil Engineering, OR Aerospace Engineering</b><br><br><b>Engineering Elective*</b> | <b>Engineering Design and Development</b>   |
| <b>Electives</b>          | World Language                                      | World Language                   |   | Additional Engineering elective/course.     |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

\*Students are required to take either one (or both) of the engineering electives which are **Aerospace Engineering** and **Civil Engineering and Architecture**.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>  |
|---|--|
| Mechanical Engineering Technician, Civil Engineering Technician, Industrial Engineering Technician, Electrical Engineering Technician | Mechanical Engineer, Aerospace Engineer, Electrical Engineer, Chemical Engineer, Nuclear Engineer, Civil Engineer, Industrial Engineer |

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**Teacher Academy of Maryland Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 7: Human Resource Services

| <b>Content Area</b>           | <b>9<sup>th</sup> Grade</b>                                  | <b>10<sup>th</sup> Grade</b>  | <b>11<sup>th</sup> Grade</b>          | <b>12<sup>th</sup> Grade</b>  |
|-------------------------------|--|---|---------------------------------------|---|
| <b>English</b>                | English  | English   | English                               | English   |
| <b>Math</b>                   | Geometry   | Algebra II  | Precalculus                           | AP Calculus I or<br>AP Statistics   |
| <b>Science</b>                | Biology  | Next appropriate<br>Science course                                      | Next appropriate<br>Science course    | AP Science<br>recommended   |
| <b>Social Studies</b>         | US History   | American<br>Government  | World History                         | Social Studies<br>Elective  |
| <b>PE / Health</b>            | PE (that meets<br>graduation<br>requirement) and<br>Health I |   | Health II (1/2<br>credit)             |   |
| <b>Tech Ed</b>                | FoCS, IED or<br>FOT  |   |                                       |   |
| <b>Fine Arts</b>              |  | Art or Music  |                                       |   |
| <b>Financial<br/>Literacy</b> |  |   | Financial<br>Literacy<br>(1/2 credit) |   |
| <b>CTE</b>                    |  | <b>Human Growth<br/>and<br/>Development<br/>through<br/>Adolescence</b> | <b>Teaching as a<br/>Profession</b>   | <b>Foundations of<br/>Curriculum<br/>Instruction</b><br><br><b>Education<br/>Academy<br/>Internship</b> |
| <b>Electives</b>              | World Language   | World Language  | Elective                              | Elective, Work-<br>Based Learning,<br>Apprenticeship,<br>and/or Dual<br>Enrollment at CSM               |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options.

Sample Career Options

| <b>With an Associate's Degree</b>                                   | <b>With a Bachelor's Degree</b>        |
|---|--|
| Instructional Assistant, Day Care Instructor,<br>Substitute Teacher | Teacher, Professional School Counselor |

## Welding Recommended Course Sequence

Maryland Career Cluster 3: Construction and Development

| Content Area              | 9 <sup>th</sup> Grade                               | 10 <sup>th</sup> Grade   | 11 <sup>th</sup> Grade          | 12 <sup>th</sup> Grade                   |
|---------------------------|---|--|---------------------------------|--|
| <b>English</b>            | English   | English  | English                         | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus       | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Next appropriate Science course |  |
| <b>Social Studies</b>     | US History  | American Government  |                                 | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)          |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |                                 |  |
| <b>Fine Arts</b>          |   | Art or Music   |                                 |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit) |  |
| <b>CTE</b>                |   |  | <b>Welding I (2 credits)</b>    | <b>Welding II (3 credits)</b>            |
| <b>Electives</b>          | Elective  | Elective<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective              | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

### Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |

**Welding Dual Completer  
Recommended Course Sequence**

Maryland Career Cluster 3: Construction and Development

| <b>Content Area</b>       | <b>9<sup>th</sup> Grade</b>                         | <b>10<sup>th</sup> Grade</b>   | <b>11<sup>th</sup> Grade</b>                             | <b>12<sup>th</sup> Grade</b>             |
|---------------------------|---|--|--|--|
| <b>English</b>            | English   | English  | English  | English                                  |
| <b>Math</b>               | Algebra I or Geometry                               | Geometry or Algebra II   | Algebra II or Precalculus                                | Next appropriately rigorous math course  |
| <b>Science</b>            | Biology   | Next appropriate Science course  | Earth Science or Physics Next appropriate Science course |  |
| <b>Social Studies</b>     | US History  | American Government  |  | World History                            |
| <b>PE / Health</b>        | PE (that meets graduation requirement) and Health I |  | Health II (1/2 credit)                                   |  |
| <b>Tech Ed</b>            | FoCS, IED or FOT                                    |  |  |  |
| <b>Fine Arts</b>          |   | Art or Music   |  |  |
| <b>Financial Literacy</b> |   |  | Financial Literacy (1/2 credit)                          |  |
| <b>CTE</b>                |   |  | <b>Welding I (2 credits)</b>                             | <b>Welding II (3 credits)</b>            |
| <b>Electives</b>          | World Language                                      | World Language<br><br>Computer Keyboarding for College and Career (1/2 credit) | Travel or Elective                                       | Travel, Elective, or Work-Based Learning |

Presented is one of the recommended course sequences. Please see your school counselor to discuss all options. For students who entered high school in the 2021-22 school year or later, Health II will be required in the 11th or 12th grade year. Some students will need to take this course outside of the school day or online in order to meet all graduation requirements in conjunction with completing a program at CTA.

Sample Career Options

| <b>With an Associate's Degree</b>   | <b>With a Bachelor's Degree</b>   |
|---|---|
| Construction Manager, Civil Engineering Technician, Building Code Inspector, Facility Manager | Engineer (all types), Architect, Specifications Writer, Project Manager |