

# 2023-2024

## Career & Technology Education Planning Guide



## Calvert County High Schools

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

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

**Northern High School**  
2950 Chaneyville Road  
Owings, MD 20736  
Mr. Stephen Williams, *Principal*  
Main Office: 443-550-8950 Guidance Office: 443-550-8941

**Patuxent High School**  
12485 Southern Connector Blvd.  
Lusby, MD 20657  
Mr. Marcus Watson, *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

# Board of Education of Calvert County

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The cover was designed by Travon Wallace, level II  
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- Director of Student Services
- Director of Human Resources  
443-550-8000

For further information on notice of non-discrimination, visit for Office of Civil Rights Complaint Assessment System at <https://ocras.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 he or she has 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:

Mr. James Kurtz  
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://ocras.ed.gov> for the office that serves your area or call 1-800-421-3481.

## 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 pathways. One is the College Preparatory Pathway. Another option for students is to complete a pathway in Career and Technical Education. Some students complete both and are considered dual completers.

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, fourteen 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 comprehensive programs 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 are 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 fourteen 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
- CISCO Networking & Cybersecurity
- Cosmetology
- Culinary Arts
- Curriculum for Agriculture Science Education (CASE)
- Electricity
- Firefighter/Emergency Medical Technician
- Graphic Arts
- Home Improvement & Carpentry
- 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
Business Management	Home High School	CSM
Accounting	Home High School	CSM
Automotive Service Technician	CTA	Advanced Technical Institute Community College of Baltimore County Nashville Auto Diesel College Ohio Technical College Pennsylvania College of Technology Universal Technical Institute University of Northwestern Ohio
Carpentry	CTA	Mid-Atlantic Carpenters Training Center

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

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 (Pilot)</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 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	1
	8008	Aerospace Engineering	1
	8011	OR Civil Engineering and Architecture	1
<b>Teacher Academy of Maryland (TAM)</b>	8009	Engineering Design and Development	1
	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 8072	Academy of Health Professions II Track A (CCMA) OR Academy of Health Professions II Track B (Physical Rehabilitation)	3
<b>Automotive Service Technician</b>	8941	Service Technician I (Brakes, Steering, and Suspension)	2
	8951	Service Technician II	3
<b>Carpentry</b>	8271	Carpentry I	2
	8281	Carpentry 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	1
	8038 or 8039	Agricultural Business, Research, and Development	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
	89978	Firefighting	3
<b>Graphic Arts</b>	8611	Graphic Arts I	2
	8621	Graphic Arts II	3
<b>Home Improvement</b>	8871	Home Improvement I	2
	8881	Home Improvement 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  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  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  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

<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>Apprenticeship Maryland Related Technical Instruction (1) Apprenticeship Maryland Work-based learning experience I, II, and III</b>
<b>Electives</b>	Elective	Elective  Computer Keyboarding for College and Career (1/2 credit)	2 Electives, specific to student interests/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.

## 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	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>Apprenticeship Maryland Related Technical Instruction (1) Apprenticeship Maryland Work-based learning experience I, II, and III</b>
<b>Electives</b>	World Language	World Language  Computer Keyboarding for College and Careers (1/2 credit)	2 Electives, specific to student interests/related to apprenticeship placement.	Additional Elective, 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)  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  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> <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>  <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 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>  <b>Work-Based Learning Experience (1 or 2 credits)</b>
<b>Electives</b>	Elective	Computer Keyboarding for College and Career (1/2 credit)  Elective	1 Elective	Work-Based Learning

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

**Carpentry  
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	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 I (2 credits)</b>	<b>Carpentry II (3 credits)</b>
<b>Electives</b>	Elective	Computer Keyboarding for College and Career (1/2 credit)  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>
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 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>Carpentry I (2 credits)</b>	<b>Carpentry II (3 credits)</b>
<b>Electives</b>	World Language	World Language  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>
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>PC Troubleshooting and Introduction to Network Engineering (2 Credits)</b>	<b>Cyber Security and Network Engineering (3 Credits)</b>
<b>Electives</b>	Elective	Computer Keyboarding for College and Career (1/2 credit)  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>PC Troubleshooting and Introduction to Network Engineering (2 Credits)</b>	<b>Cyber Security and Network Engineering (3 Credits)</b>
<b>Electives</b>	World Language	World Language  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 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: 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 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: 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  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  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 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 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  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  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: Intro to Agriculture, Food, and Natural Resources and Principles of Agricultural Sciences – Animal (2 credits)</b>	<b>CASE II: 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: Intro to Agriculture, Food, and Natural Resources and Principles of Agricultural Sciences – Animal (2 credits)</b>	<b>CASE II: 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  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  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: Principles of Biomedical Sciences  Computer Keyboarding for College and Career (1/2 credit)	(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



**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  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

<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>	Elective	Elective  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 Museum Director, Gallery Manager, Fine Artist (i.e., painting, sculpture, ceramics), Advertising Manager, Publicist, Communications Manager

## Graphic Arts Dual Completer 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>	World Language	World Language  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, Museum Director, Gallery Manager, Fine Artist (i.e., painting, sculpture, ceramics), Advertising Manager, Publicist, Communications Manager

## 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	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>Home Improvement I (2 credits)</b>	<b>Home Improvement II (3 credits)</b>
<b>Electives</b>	Elective	Elective  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, Facility Manager	Engineer (all types), Architect, Specifications Writer, Project Manager

## 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>Home Improvement I (2 credits)</b>	<b>Home Improvement II (3 credits)</b>
<b>Electives</b>	World Language	World Language  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, Facility Manager	Engineer (all types), Architect, Specifications Writer, Project 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  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  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 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 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  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  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>IED</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</b> <b>Engineering Elective*</b>	<b>Engineering Design and Development</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.

\*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 AP Statistics
<b>Science</b>	Biology	Next appropriate Science course	Next appropriate Science course	AP Science recommended
<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>Human Growth and Development through Adolescence</b>	<b>Teaching as a Profession</b>	<b>Foundations of Curriculum Instruction</b>  <b>Education Academy Internship</b>
<b>Electives</b>	World Language	World Language	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>
Instructional Assistant, Day Care Instructor, 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  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, 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  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