



CUMBERLAND VALLEY

SCHOOL DISTRICT

Soaring to Greatness, Committed to Excellence

Cumberland Valley Virtual Academy

High School Program of Studies

2021-2022



Cumberland Valley School District prohibits discrimination, including sexual harassment, on the basis of race, color, age, creed, religion, sex, sexual orientation, ancestry, national origin, marital status, parenting status, pregnancy or handicap/disability in its activities, programs or employment practices.

The following employees have been designated to handle questions and complaints of alleged discrimination or sexual harassment:

Compliance Officer:

Michelle Zettlemoyer, Director of Human Resources
(717) 506-3339
mzettlemoyer@cvschools.org

ADA/Section 504 Coordinator:

Doris Hagemann, Director of Student Services
(717) 506-3320
dhagemann@cvschools.org

Individuals with disabilities who require assistance or special arrangements to attend a program or activity sponsored by the Cumberland Valley School District should contact Michael Willis, Director of Business and Support Services at (717) 506-3312 or mwillis@cvschools.org. For TTY, dial 711 for Relay Service.

PREFACE

Cumberland Valley School District is committed to ensuring that all students have the opportunity to receive a high school diploma and prepare for future college and career opportunities. In addition to taking courses described in this program of studies, students can meet their graduation requirements by completing high school courses while in middle school and by taking courses outside of the school day/year offered by the district, local colleges, and universities.

GRADUATION REQUIREMENTS

1. **CREDIT REQUIREMENTS** – In order to graduate from Cumberland Valley High School, a student must accumulate a total of twenty-three (23) credits. The following guidelines govern the number of credits that students should take each school year:
 - a. Students in grade 9-11 must take a minimum of 6.5 credits each year.
 - b. Students in 12th grade wishing to compete in athletics must take at least 4 credits to meet PIAA expectations. All PIAA participants must pass a minimum of 4.0 credits to maintain eligibility.
 - c. **Credits earned while in middle school:** Middle school students who successfully complete a math course of Algebra I or beyond or a world language course of Level I or beyond will receive a high school credit for that course. That is, the course will count toward the 23-credit graduation requirement and will appear on the student's transcript. The course will not count toward GPA or class rank. If a student takes a high school class in 8th grade, the class may count toward NCAA eligibility.
2. **COURSE REQUIREMENTS** – In order to graduate from Cumberland Valley High School, all students must pass certain subjects and credits (included within the 23 credits required for graduation) as follows:
 - a. **CORE COURSES**
 - i. **ENGLISH 4.0 credits:** Students are required to pass the following:
 1. English 9
 2. English 10
 3. American Literature or AP English Language and Composition
 4. World Literature, AP English Literature and Composition, or IB English HL II
 - ii. **MATHEMATICS 3.0 credits:** Students are required to pass the following:
 1. Algebra I
 2. Two additional math courses
 - iii. **SCIENCE 3.0 credits:** Students are required to pass the following:
 1. Environmental Science OR Intro to AFNR (begins with the class of 2025, waived for 2022-2024)
 2. Biology
 3. Chemistry
 - iv. **SOCIAL STUDIES 3.0 credits:** Students are required to pass the following:
 1. World History (1.0 credit)
 2. Government & Economics (0.5 credit each)
 3. US History (1.0 credit)
 - v. **ADDITIONAL CORE COURSES:** Students must pass **2.0 additional credits** of social studies, mathematics, and/or science in any combination. Please note that students attending a CPAVTS Program for 3 years only need to earn 1.0 additional core course credit.
 - vi. **HEALTH/PHYSICAL EDUCATION 1.5 credits**
 - b. **ELECTIVE COURSES 6.5 credits:** Agriculture, Art, Business Computer & Information Sciences, Health/Physical Education, Internships/Cooperative Work Experience, Mathematics, Science, Social Studies, Technology & Engineering, and/or World Languages
 - i. **PLEASE NOTE:** It is strongly recommended that a third year course in any one World Language and a fourth year in Math, Science and Social Studies be completed by students intending to enroll in a four year college/university.
3. **KEYSTONE EXAM REQUIREMENTS**
 - a. **Beginning with the class of 2023,** students must either be proficient on the Biology, Algebra I, and English Literature Keystone Exams or meet their state graduation requirements through their:

- i. Composite score on the Keystone Exams
 1. A student meets or exceeds a state-defined satisfactory composite score across the three Keystone Exams, with a proficient score on at least one exam and no less than basic on the remaining two exams.
- ii. Local grade requirements and alternative assessments, courses and programs, acceptance to college, and/or CTE evidence of readiness
 1. Students who do not meet the state graduation requirements through Keystone Exam Proficiency or their Keystone Exam Composite Score may meet the state graduation requirements by demonstrating post-secondary readiness through additional evidence that illustrates college, career, and community readiness.
 2. Please see School Board Policy 217 for the specific requirements to meet the state graduation requirements with this method.

4. CAREER ACTIVITY EXPECTATIONS

- a. Students are expected to complete 8 career activities by the conclusion of their junior year. The majority of these activities will be earned through participation in ACES classes and other activities provided by Cumberland Valley.

SCHEDULE CONSTRUCTION

Students should thoroughly study this Program of Studies, and in consultation with their teachers, counselor, and parents/guardians make wise course selections for the school year. Adequate schedule planning, budgeting, and efficient curriculum management can take place only when school personnel can consider course selections final and binding. Students should choose courses and levels (honors, AP, college prep, etc.) that are appropriate to their needs, abilities, and the competitive realities of college admissions and employment opportunities.

Being able to make decisions also includes the responsibility of fulfilling one's commitment. Thus, students should choose their program carefully. Students are making a commitment as they elect their courses. Development of a student/teacher schedule has great impact on the allocation of staff, resources, and CV's ability to maintain an environment conducive to quality learning. Students are permitted to submit course change requests during the selection period (January to early March) and immediately after student schedules are released.

New students need to have academic records and/or transcript in order to register for Honors, AP, and/or IB level courses.

Students who do not submit course requests or do not meet prerequisites may forfeit their ability to select courses for themselves. In this case, course selection will be left to the discretion of the student's counselor.

Course change requests should follow the guidelines below.

CHANGING A COURSE OR INSTRUCTIONAL COURSE LEVEL

- **All changes must be requested within three weeks of student schedules being released.**

Students must complete a Course Change Form. **Course or level change requests** must also meet one of the following criteria:

- Academic misplacement as determined by previous subject grades, related standardized test scores, teacher information, evidence of sufficient student effort and building principal approval
- Missing a graduation requirement or college admissions requirement
- Missing a course prerequisite

DROPPING A COURSE

- **Drops may be requested starting on the first day of the 2021-2022 school year.**

To drop a course, students must adhere to the following:

- Students must maintain enrollment at or above required minimum credits
- Students may not drop a course (core or elective) necessary for graduation. Students may not drop a course

in order to add another credit-bearing course.

- No credit will be given for the dropped course
- Courses dropped between the start of school and the end of the 3rd week of school will be removed from students' transcripts (i.e. no permanent record of enrollment in the course will exist on the transcript)
- Grades for courses dropped *THROUGH the 1st Marking Period Interim Date (or the 3rd Marking Period Interim Date for Semester 2 classes)* will show as "W" (withdrew) on the transcript
- Grades for courses dropped *AFTER the 1st Marking Period Interim Date (or the 3rd Marking Period Interim Date for Semester 2 classes)* will show as "WF" (withdrew/failing) on the transcript

ADDING AN ADDITIONAL COURSE

- **All course additions must be requested within three weeks of student schedules being released.**

Students may add an additional course to their schedule once they receive their draft schedule. Approval from the applicable department supervisor is required.

COURSE LEVELS AND FORMATS

CVHS offers courses in various levels and formats to meet students' instructional and learning needs. These levels and formats should be considered when selecting courses. Students should consult with their teachers, school counselors, and parents to determine what level and format is best for them in any given course.

COURSE LEVELS

The chart below provides information about the course levels offered at CVHS. Students should use this information, in consultation with their teachers, school counselors, and parents to select their appropriate level of courses. Please note that course levels are often determined by teacher recommendation during the course selection process. However, departments may develop separate guidelines for specific purposes.

Course Level	Weighting	Student Responsibility	PDE Standards Coverage	Homework	Projects	Test Prep Time Expected
IB/AP/CHS/Dual Credit course	1.13	Students will hold primary responsibility for their success in this course. Students must possess independent academic skills. The teacher will present material and facilitate the student's success.	Course content is planned to meet AP / IB / College standards.	Will be assigned in class and used to introduce, review or extend concepts discussed in class.	Project(s) will be assigned that requires students to work at the upper levels of Webb's Depth of Knowledge.	Students will be expected to commit significant preparation time for each major unit test.
Honors	1.1	Students will hold significant responsibility for their success in this course. Teachers will expect students to see them for extra help when needed.	Course content exceeds the PDE academic standards.	Will be assigned in class and used to introduce review or extend concepts discussed in class.	Project(s) will be assigned that requires students to work at the upper levels of Webb's Depth of Knowledge.	Students will be expected to commit significant preparation time for each major unit test.

Level 2	1.0	Students must use class time conscientiously to complete assignments and review under the guidance of their teacher.	Course content is structured around the framework provided by the PDE academic standards.	Will be assigned and modeled in class and used to review concepts introduced in class.	Projects that follow a teacher prepared timeline may be assigned and completed as part of homework requirements.	Students will be expected commit to prep time outside of class for each major unit test.
Level 3	1.0	Students must use class time conscientiously to complete assignments and review under the guidance of their teacher.	Course content is structured around the framework provided by the PDE academic standards.	Students will be occasionally assigned work outside of class.	Projects will be assigned and time some time provided in class for completion.	Some prep time outside of class will be needed to prepare for tests & quizzes.

CUMBERLAND PERRY AREA VOCATIONAL TECHNICAL SCHOOL

Cumberland Perry Area Vocational Technical School (CPAVTS) is an extension of Cumberland Valley Virtual Academy, offering comprehensive instruction in 22 career and technical programs. Students can attend programs at CPAVTS in grades 10-12.

Students attend CPAVTS for half of their school day, taking courses in their technical program plus social studies. Students attend CVVA for English, Science, Mathematics, Physical Education, and other graduation requirements.

The full scope of skills and competencies in the technical programs at CPAVTS are taught over a three-year course sequence. However, students may attend CPAVTS for one or two years to support their career goals.

CPAVTS students are expected to be responsible and respectful, demonstrating safe work habits at all times. Students must be able to understand and comply with all school rules and procedures.

CPAVTS has a competitive application process. Students are admitted based on their application score and school district enrollment quotas. See your sending school counselor for an application. Clicking on the program names below will connect you to the program web page at www.cpvts.org.

CAREER PATHWAYS AND PROGRAMS AT CPAVTS

<u>CONSTRUCTION AND MAINTENANCE</u> <u>Carpentry</u> <u>Electrical Construction and Maintenance</u> <u>Heating/Ventilation/Air Conditioning</u> <u>Horticulture/Landscaping</u> <u>Masonry</u>	<u>ARTS & TECHNOLOGY</u> <u>Advertising Art & Design</u> <u>Computer Networking</u> <u>Computer Programming</u>
<u>MANUFACTURING</u> <u>Automation, Robotics & Electronics</u> <u>Precision Machine Technology</u> <u>Welding Technology</u>	<u>HEALTH SCIENCES</u> <u>Dental Assistant</u> <u>Nurse/Nursing</u> <u>Assistant Emerging</u> <u>Health Professionals</u>

<u>HUMAN SERVICES AND HOSPITALITY</u> <u>Cosmetology</u> <u>Criminal Justice</u> <u>Culinary Arts</u> <u>Early Childhood Education</u>	<u>TRANSPORTATION & LOGISTICS</u> <u>Auto Collision</u> <u>Technology</u> <u>Automotive</u> <u>Technology Diesel</u> <u>Technology</u> <u>Logistics & Warehouse</u> <u>Management</u>
---	---

Additional information on curriculum, college credit opportunities, and uniform requirements is available online at www.cpavts.org/. Please see Appendix B for additional information about pathways at Cumberland-Perry Area Vocational Technical School.

INTERNSHIPS

Cumberland Valley School District partners with the local community, businesses, and organizations in order to provide authentic internship opportunities. Sophomores, juniors and seniors can elect to participate in an internship. These students will be able to work with area businesses and professions during the school day, after school, or in the summer. The purpose of the internship is to help students gain a better understanding and appreciation of the career field in which they are interested. Credit is determined by the hours spent at the internship site. CV's internships fall under five different pathways. There are different opportunities based on students' interests in each pathway.

Please see [Cumberland Valley's Internship Website](#) for information on internship requirements and specific internship programs/opportunities. This information can also be found in the Student Internship Manual available from the Career Coordinator

Course Number	Course Title	Recommended Grade	Number of Semesters	Credits	Weighted Value
8846	Arts & Communications Internship	10-12	1 or 2	Max 2	1.0
8847	Business, Finance, & Information Technology Internship	10-12	1 or 2	Max 2	1.0
8848	Engineering & Industrial Technology Internship	10-12	1 or 2	Max 2	1.0
8849	Human Services Internship	10-12	1 or 2	Max 2	1.0
8851	Science & Health Internship	10-12	1 or 2	Max 2	1.0

8846 Arts & Communications Internship

Students interested in fine and performing arts can learn more about careers in this area. Weekly journals, employer evaluations and a final reflection report are required to fulfill program requirements. Pre-approval from the Career Coordinator is required in order to earn credit.

8847 Business, Finance, & Information Technology Internship

Students interested in information sciences, business, and e-commerce can learn more about careers in his area. Weekly journals, employer evaluations and a final reflection report are required to fulfill program requirements. Pre-approval from the Career Coordinator is required in order to earn credit.

8848 Engineering & Industrial Technology

Students interested in design, engineering, construction, and advanced manufacturing can learn more about careers in this

area. Weekly journals, employer evaluations and a final reflection report are required to fulfill program requirements. Pre-approval from the Career Coordinator is required in order to earn credit

8849 Human Services Internship

Students interested in education, government and public administration, hospitality and tourism, law, public safety, corrections, and security can learn more about careers in this area. Weekly journals, employer evaluations and a final reflection report are required to fulfill program requirements. Pre-approval from the Career Coordinator is required in order to earn credit.

8851 Science & Health Internship

Students interested in careers in science and health can learn more about careers in this area. Weekly journals, employer evaluations and a final reflection report are required to fulfill program requirements. Pre-approval from the Career Coordinator is required in order to earn credit.

CO-OP EDUCATION WORK PROGRAM

4097 Co-op Work Experience (3 periods)

Cooperative education provides students with the opportunity to earn academic credit for on-the-job work experience. Ideally, this employment is in a position related to the student's chosen future career. Students are not permitted to work in a business owned by their parents or a family member. Students must work 150 school days during the academic year AND a minimum of 15 hours per week. Students are expected to begin work once they are released from school. Students may only change employers one time during the school year. Cooperative education is regulated by the Pennsylvania Department of Education (PDE) and students may be subject to additional expectations from PDE.

All co-op work experiences must be approved by the CVHS Career Coordinator. It is the student's responsibility to secure employment prior to the start of the school year. Students in the program will have their required subjects scheduled in the morning so that they will be able to work in the afternoon. Throughout the work experience, students will be expected to complete various online activities to assist in their career development. Additionally, occasional face-to-face meetings will be held with the CVHS Career Coordinator. Students will be graded on a Pass/Fail basis and the grade will be based on students providing required paystubs and other logs, completing online modules, and attending mandatory face-to-face meetings. To apply for this program, contact the CVHS Career Coordinator in the Counseling Center. Applications, training agreements, training plans and applicable volunteer clearances must be finalized at least two weeks prior to the start of school.

COURSE OFFERINGS BY DEPARTMENT

ACES

5033 ACES 1 (9th grade)

0.25 cr

ACES stands for Academic, Career/College, Emotional and Social Development. All freshmen must enroll in this seminar style class with their school counselor. Information is disseminated pertinent to orientation, careers, course selection, aptitude testing, cyber safety, peer relationships, vocational interest testing, vocational—technical school information and application, grading and credits, and IMC information, as is applicable to students in their specific curriculum. Presentations are made by counselors, administrators, and department supervisors.

5040 ACES 2 (10th grade)

0.25 cr

ACES stands for Academic, Career/College, Emotional and Social Development. All sophomores must enroll in this course with their school counselor. The content will be delivered both online and during scheduled class periods. Information is disseminated pertinent to careers, course selection, aptitude testing, college and career search tools, and resume writing. Students will be expected to complete both the online and in-person assignments to receive

course credit.

AGRICULTURAL SCIENCES

8523 Introduction to Agriculture, Foods, & Natural Resources 0.5 cr

This semester-length high school elective introduces students to the basic scientific principles of Agriculture and Natural Resources. Students will be recognizing and researching plant systems, animal systems, government policy, “green” technologies, agribusiness principles, and sustainability systems. (Odysseyware)

8509 Animal Systems 0.5 cr

Animals today are used for clothing, food, transportation, agriculture, herding, companionship, guide assistance, and crime fighting, and research continues to reveal new uses. As our scientific understanding of animal systems grows, so do our best practices, ethical considerations, and research applications. How mankind treats animals impacts their well-being and productivity. The course provides students with a wealth of information on livestock-management practices, animal husbandry, physiological systems, the latest scientific trends, and innovations in food production. Changes in practices, regulations, and legislation for animal welfare continue as new research provides solutions to medical, ethical, and practical concerns. The course reviews current topics, such as advancements in technology and research, and defines areas of discussion while maintaining focus on best-management practices. How the research translates to management practices is a vital area of study and discussion. (Odysseyware)

8524 Plant Systems 0.5 cr

Plant Systems is a semester-length high school elective that introduces students to the basics of plant biology, soil science, agriculture, and horticulture, along with the environmental management practices involved in each, including integrated pest management, biotechnology, growth techniques, and crop management. Students will learn the basic parts of a plant, how plants are scientifically classified, and how they interact with water, air, nutrients, and light to undergo the processes of photosynthesis and respiration. Plant reproduction, including pollination, germination, and dispersal of seeds, is also presented. (Odysseyware)

ART

6158 3D Modeling 1.0 cr

Are you interested in a career in technology? Are you curious about working in fields like virtual reality, video game design, marketing, television and motion pictures, or digital imaging? If so, this course in 3D Modeling is a great place to start as it is the foundation for all these career paths. Gain a deeper understanding of graphic design and illustration as you use 3D animation software to create virtual three-dimensional design projects. Hone in on your drawing, photography, and 3D construction techniques and develop the skills needed to navigate within a 3D digital modeling workspace. Students will also explore more advanced modeling principles, such as geometrics, rendering, lighting, shading, and environmental models. Students will learn to create and build an e-portfolio while expanding industry knowledge which is then applied to developing a future career in 3D modeling. This course was created using Blender version 2.79 and requires a computer running Windows Vista and above, Mac OSX 1.6 and above, or Linux. (eDynamic)

6160 Animation 1.0 cr

Do you wonder what it would be like to create the next blockbuster animated movie or do you want to make the next big video game? Do you have an eye for drawing, technology, and timing? If so, Animation is the course for you! You will learn how to use animation tools to conceptualize and bring your creations to life. You’ll learn the ins and outs of creating 2D and 3D animation, from start to finish. You’ll even begin working on our own design portfolio and get hands on experience with creating your own animation projects. Learning about Animation could lead to a thriving career in the growing world of technology and animation. This course requires a computer running on Windows XP and higher, Linux and Mac computers. Additionally, a keyboard with number pad and 3-button mouse are required. (eDynamic)

6107 Drawing & Painting 1.0 cr

This course is a combination of Basic Drawing and Beginning Painting. In Basic Drawing, students will experiment with several different art materials and tools to see what each tool can do best. Students will explore ordinary things around them to become more observant of the structures and meanings of things which can be seen in your their home and community. Beginning Painting introduces students to classical and contemporary painting, techniques and concepts, with emphasis on the understanding of its formal language and the fundamentals of artistic expression. Painting from still life, landscape, and life models from observation will be geared towards realism; at the same time, various other painting styles could be explored. Color theory, linear perspective, compositional structure, figure/ground relationships, visual perception, spatial concepts, and critical thinking skills will all be emphasized. Students will study and research major painting styles and movements in historical context. The hope is that students will use this global approach to develop a “critical eye” in evaluation of contemporary painting. Acrylic and watercolors are the mediums used in this class. The main emphasis of this course is to encourage and nourish individuality and creativity. (Accelerate-Ed)

6171 Photography 1

1.0 cr

Have you wondered how professional photographers manage to capture that perfect image? Gain a better understanding of photography by exploring camera functions and the elements of composition while putting theory into practice by taking your own spectacular shots! Learn how to display your work for exhibitions and develop skills important for a career as a photographer. Incorporate your ideas into websites and dabble in the basics of marketing to understand how your work is used. Finally, explore the world of podcasts and audio editing to construct a solid foundation from which you can pursue a career! *Students will be required to provide their own manual camera or digital camera with manual settings (the camera needs to allow for the mode, shutter speed, and aperture to be adjusted). A Smartphone may be used for most required tasks, however, appropriate applications will need to be installed to allow the student to make the necessary adjustments to the camera mode, shutter speed, and aperture. Students will also need to have access to GarageBand (Mac) or Audacity. (eDynamic)*

*****Additional art electives may be available upon request through CV's partnership with CAOLA. Students interested in a different elective course in this department should contact Mr. David Gilbert (dgilbert@cvschools.org), CVVA Principal, for more information.*****

BUSINESS, COMPUTER, & INFORMATION TECHNOLOGY

4052 Business Applications

0.5 cr

Business Applications prepares students to succeed in the workplace. Students begin by establishing an awareness of the roles essential to an organization's success, and then work to develop an understanding of professional communications and leadership skills. In doing so, students gain proficiency with word processing, email, and presentation management software. This course allows students to explore careers in business while learning skills applicable to any professional setting. Through a series of hands-on activities, students will create, analyze, and critique reports, letters, project plans, presentations, and other professional communications. Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them for work. In addition, students will evaluate the qualifications required for specific careers so they can identify opportunities that are of interest to them. Students who successfully complete the course can go on to obtain the Microsoft® Office Specialist: Microsoft® Office Word certification. Students will need access to Microsoft Office to enroll in this course. (Apex)

4057 Webpage Design

0.5 cr

In this course, students will learn how to design a beautiful and functional website. Students will learn how to take their design and translate it into a live website using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) programming languages. HTML5 and CSS3 will be the standard versions used in the class. Students will understand design components of websites, including the use of color, layout and when to use different techniques, typography rules, and the importance of imagery. At the conclusion of the course, students will present a website to the class. Upon completion of this course, each student will have hands-on experience creating a fully functioning website. (Accelerate-Ed)

4073 Accounting I

1.0 cr

Accounting I examines how to make decisions about planning, organizing, and allocating resources using accounting procedures. Throughout the course, students focus on double-entry accounting; methods and principles of recording business

transactions; the preparation of various documents used in recording revenues, expenses, assets, and liabilities; and the preparation of financial statements. This course allows students to explore careers in accounting while learning skills applicable to any professional setting. Students will engage in project-based activities such as analyzing financial statements; implementing the accounts payable and accounts receivable process; and determining payroll expenses and taxes. Active learning ensures that students continually focus on the technical and interpersonal skills necessary to prepare them for workplace. In addition, students will evaluate the roles and qualifications required for specific accounting careers so they can identify opportunities of interest to them. Accounting I is a full-year intermediate Career and Technical Education course applicable to programs of study in the Finance or Business Management and Administration career clusters. This course is built to state and national CTE standards. Students who successfully complete the course will be prepared to pursue certifications such as Associate in Regulation and Compliance, Certified Management Accountant, or Certified Quality Auditor. (Apex)

4085 Business Law 0.5 cr

This course examines the role of the law on all aspects of business ownership and management. Throughout the course, students focus on legal ethics, court procedures, torts, contracts, consumer law, property law, employment law, environmental law, and international law. Students also explore the impact of laws, regulations, and judicial decisions on society at large. Students will explore careers in business while learning skills applicable to any professional setting. Through a series of hands-on activities, students will prepare legal documents, create a compliance plan, and research consumer protection issues. (Apex)

4093 Sports & Entertainment Marketing 1.0 cr

Whether you are watching a famous athlete make an unbelievable play or witnessing a sensational singing performance, the world of sports and entertainment is never boring. Although it may seem impossible for you to be a part of this glittery world, it's not! The Sports and Entertainment Marketing field offers careers that combine entertainment with traditional marketing, but with a whole lot more glamour. Explore basic marketing principles while delving deeper into the multibillion dollar sports and entertainment industry. Learn how professional athletes, sports teams, and famous entertainers are marketed as commodities and how the savvy people who handle these deals can become very successful. This course will show you exactly how things work behind the scenes of a major entertainment event and how you can be part of the act. (eDynamic)

4088 Personal Financial Literacy 0.5 cr

Personal Financial Literacy is a semester-length elective designed to help high school students prepare for success in making financial decisions throughout their lives. Topics in the course address the advantages of making sound financial decisions in both the short and long term, income planning, money management, saving and investing, and consumer rights and responsibilities. (Odysseyware)

4089 Entrepreneurship 0.5 cr

This semester-long course is designed to provide the skills needed to effectively organize, develop, create, and manage your own business, while exposing you to the challenges, problems, and issues faced by entrepreneurs. Throughout this course, you will be given the chance to see what kinds of opportunities exist for small business entrepreneurs and become aware of the necessary skills for running a business. You will become familiar with the traits and characteristics that are found in successful entrepreneurs, and you will see how research, planning, operations, and regulations can affect small businesses. You will learn how to develop plans for having effective business management and marketing strategies. (Odysseyware)

4087 Essentials of Business 0.5 cr

This semester-long course is an introduction to the goals, processes, and operations of business enterprises for students. The main focus is on the functions that a company – whether a multinational corporation or a corner grocery store – must manage effectively to be successful. These include accounting, finance, human resource management, marketing, operations management, and strategic planning. Attention is also given to the legal environment in which businesses operate, and the importance of business ethics and corporate citizenship. (Odysseyware)

*****Additional BCIT electives may be available upon request through CV's partnership with CAOLA. Students interested in a different elective course in this department should contact Mr. David Gilbert (dgilbert@cvschools.org), CVVA**

*Principal, for more information.****

ENGLISH

1111	*H English 9	1.0 cr
1112	English 9 L2	1.0 cr
1113	English 9 L3	1.0 cr

The 9th grade English course connects reading instruction with writing for multiple purposes; practice and study of informational and literary reading and writing. Students read extensively from a variety of sources, and draft, revise, and edit their own writing. Critical reading, writing, and analytical skill development will be emphasized, along with grammar/conventions and vocabulary study.

1121	*H English 10
1122	English 10 L2
1123	English 10 L3

The 10th grade English course builds on the previous year's critical reading and analytical writing instruction in order to analyze literature and informational text on a deeper level. Integral parts of this course include the following: literary analysis and argumentative writings, literary and film analysis, poetry study, vocabulary development, critical thinking, and research. Formal class presentations and writing are also important components of this course.

1132 American Literature L2
1133 American Literature L3

The 11th grade English course will explore American literature from the Puritan era to Post-Modernism, paying specific attention to the history of the periods and the influences of race, class, and gender on society. This course, through the analysis of each work, will study history through literature. Texts will include the novel, drama, non-fiction, poetry, and short story. In addition, various forms of media will be utilized throughout this course to enhance the study of the texts. Students will also learn the value of and proper methods of research, culminating in a research-based argumentative writing and speech.

1131 *AP English Language & Composition

The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

1142 World Literature L2
1143 World Literature L3

The 12th grade English course provides students with opportunities to explore and respond to multiple genres from various global, historical, and social contexts. Students will read and analyze texts from ancient to modern day, and will consider the context that shaped the novels, epic poems, short stories, and dramas. The culminating assessment of the course is the Philosophy of Life project; this includes an oral presentation to the class, a written paper, and the creation of an audio/visual product.

1141 *AP English Literature & Composition

The AP English Literature and Composition course provides the experience of a typical introductory college literature course. It includes intensive study of representative works from various genres, periods, and cultures, concentrating on works of recognized literary merit. Students will consider the social and historical values a work reflects and embodies. Careful attention to both textual detail and historical context provides a foundation for interpreting a text. Writing assignments in the course will address the critical analysis of literature and will include expository, analytical, and argumentative essays.

Literacy

1128 Literacy

This course is designed to accelerate the rate of growth in reading for students who demonstrate a need to achieve higher levels of performance in meeting the Pennsylvania Core Standards in English/Language Arts. A certified reading specialist provides focused strategy instruction for students who are scheduled for this class, based on their historical and projected reading data performance. Curriculum is focused on the PA Common Core informational text standards.

ENGLISH LANGUAGE DEVELOPMENT (ESL/ELD)

4000 Foundations of English

Prerequisite: ESL teacher recommendation required

This course is for students with very minimal English language comprehension or usage. The focus will be on listening, speaking, reading, and writing in English, with special explicit instruction in phonemic awareness, phonics, and fluency.

4001 Intermediate English 9

4002 Intermediate English 10

4003 Intermediate English 11

4004 Intermediate English 12

Prerequisite: ESL teacher recommendation required

Students enrolled in Intermediate English are English language learners with a moderate level of English language comprehension and usage. This course will engage students in challenging, theme-based curriculum designed to develop their Cognitive Academic Language Proficiency (CALP) in listening, speaking, reading, and writing.

4008 ESL Support

In this course, students with limited English proficiency receive support and guidance with assignments, school procedures, and other subjects as needed in order to enhance listening, speaking, reading, and writing acquisition. The class is limited to English language learners and provides them with an opportunity for individualized support as they work on subject area courses.

4009 Beginner English 9

4010 Beginner English 10

4011 Beginner English 11

4012 Beginner English 12

Prerequisite: ESL teacher recommendation required

This course is for students with minimal English language comprehension or usage. The focus will be on listening, speaking, reading, and writing in English, with special explicit instruction in reading strategies and writing conventions.

FAMILY & CONSUMER SCIENCES

7520 Culinary Essentials I

0.5 cr

Thinking of a career in the food service industry or looking to develop your culinary skills? This introductory course will provide you with basic cooking and knife skills while preparing you for entry into the culinary world. Discover the history of food culture, food service, and global cuisines while learning about food science principles and preservation. Finally, prepare for your future by building the professional, communication, leadership, and teamwork skills that are crucial to a career in the culinary arts. (eDynamic)

7521 Culinary Essentials II

0.5 cr

Did you know that baking is considered a science? Building on the prior prerequisite course, discover how to elevate your culinary skills through the creation of stocks, soups, sauces, and learn baking techniques. Examine sustainable food practices and the benefits of nutrition while maintaining taste, plating, and presentation to truly wow your guests. The last unit in this course explores careers in the culinary arts for ways to channel your newfound passion! (eDynamic)

7509 Introduction to Human Growth & Development**0.5 cr**

This course focuses on human growth and development over the lifespan, as well as careers that help people deal with various physical, intellectual, and socioemotional issues, such as physicians, nurses, nutritionists, substance abuse counselors, clergy, teachers, career counselors, psychologists, and psychiatrists. This course is important because it gives the student a background in human growth and development from before birth, through childhood, into adulthood, and through death and grief. It gives the student perspective and highlights where people in the caring professions are most needed. Students who take this course will come away with a broad understanding of all the careers that help people from birth to death. They will understand how people in the helping professions interact with each other and how continued growth in this sector can give them flexibility, good pay, and high job satisfaction. (Odysseyware)

7516 Introduction to Education & Training**0.5 cr**

The Introduction to Careers in Education and Training course will introduce students to the field of education and training, and the opportunities available for early-childhood care, primary school, secondary school, higher education, vocational training, and adult and continuing education. The students will gain an understanding of the career options available in teaching, administrative work, and support services. They will also explore the education and background experience needed to succeed in these careers. Students will learn about the evolution of the modern educational system in the United States, and the policies and laws that govern educational institutions. They will also discover the similarities and differences between the ethical and legal obligations of working with adults versus working with children. Students will learn about the skills needed to be effective communicators. They will also learn how to differentiate between different types of learning theories, and they will explore how to implement current principles from educational psychology into the classroom. Students will also learn how to create a safe and healthy learning environment. They will discover the federal laws and agencies that set health-and-safety standards, and they will learn how these regulations are enforced in the workplace. The objective of this course is to introduce the student to the field of education and training, and to explain the career opportunities that are available in this field. (Odysseyware)

*****Additional FCS electives may be available upon request through CV's partnership with CAOLA. Students interested in a different elective course in this department should contact Mr. David Gilbert (dgilbert@cvschools.org), CVVA Principal, for more information.*****

HEALTH/PHYSICAL EDUCATION

5005 Health and Physical Education

This course will explore different and effective ways of exercising in a home/virtual setting. Additionally, students will study the dimensions of wellness that make up an individual's overall health. Students will discover how the dimensions of wellness are interrelated and affect each other.

MATHEMATICS

Students are required to pass three credits of Mathematics in order to graduate from Cumberland Valley High School. Students are required to pass the following:

1. Algebra I
2. Two additional math courses

3006 Math Foundations

Department Supervisor recommendation needed.

Math Foundations is a year-long course. This course is intended for those students who have not yet mastered the prerequisite skills necessary for Algebra I. It focuses on concepts that are the foundation for Algebra. Students will learn a range of topics, many involving real world applications. These topics include percent-proportion problems, surface area, volume, and linear equations.

3007 Fundamental Math
Department Supervisor recommendation needed.

Fundamental Math is a year-long course. This course is intended for those students who have not yet mastered the prerequisite skills necessary for Math Foundations. It focuses on concepts that are the foundation for PreAlgebra. Students will learn a range of topics, many involving real world applications.

3011 Honors Algebra 1
3013 Algebra 1 L2
3015 Algebra 1A L3
3016 Algebra 1B L3

The Algebra I course is designed to move students' mathematical development from concrete to abstract reasoning. The primary themes are problem solving, graphing data and functions, writing and solving equations, using ratios, and manipulation of algebraic symbols. The Algebra Keystone exam is administered at the end of this course. **Algebra I L3 A is the first course for Algebra I over 2 years.**

3021 *H Geometry (Pre-AP)
3023 Geometry L2
3025 Geometry L3

This course introduces important geometric concepts such as properties of two and three dimensional figures while maintaining student's algebra skills.

3031 * H Algebra II (Pre-AP)
3033 Algebra II L2
3035 Algebra II L3

This course builds on and extends the concepts learned in Algebra I and Geometry. Emphasis is placed on problem solving, representing real situation with mathematical models, analyzing and graphing functions with emphasis on non-linear functions, working with systems of equations, and developing mathematical reasoning and communication skills.

3041 *H PreCalculus with Trigonometry (Pre-AP)
3043 PreCalculus with Trigonometry L2

This course is intended as a prerequisite for students who will be going on to study Calculus. Students will study function analysis, number systems, coordinate geometry, coordinate planes, conic sections, mathematical induction, sequences and series, the binomial theorem and probability. Students will also study trigonometric functions, including graphs, inverse functions and trigonometric identities, based on right-triangle trigonometry and the unit circle. This course is rigorous and requires independent work, class discussion and special projects. Students will be expected to prepare daily to keep up with the pace of the class. Students tending toward careers in math and science and willing to spend extra time outside of class should take the honors level course.

3051 *AP Calculus AB

This course consists of all of the work in Calculus I and part of the work in Calculus II at the college level. Students in this course will be prepared for and expected to take the AB Calculus Advanced Placement Test to seek credit/advanced placement from the college they plan to attend.

3053 Calculus L2

Most colleges and universities now require a calculus course for those students entering many business and social science fields. This course is designed to introduce students to the primary concepts of derivatives, integrals, and limits from an inductive rather than a theoretical approach.

3061 *AP Calculus BC
Prerequisite: Taken and Passed *AP Calculus AB

This course extends the work started in *AP Calculus AB and is primarily intended for those students who plan to enter career fields involving extensive mathematics. Topics include Improper Integrals, Infinite Series and Taylor Polynomials,

polar and parametric equations, conic sections, vectors and vector functions, and an introduction to multivariable differentiation and integration. Students enrolled in this course are expected to take the BC Calculus AP test.

3062 *H Calculus III

Prerequisite: Taken and passed *AP Calculus BC

This course extends the work started in *AP Calculus BC and is primarily intended for those students who plan to enter career fields involving extensive mathematics. Topics include vectors and vector-valued functions; partial differentiation; multiple integrals; space geometry; and vector calculus.

*** This is a course is weighted at 1.13**

3067 Financial Algebra

Financial Algebra is a college-preparatory course that will use sophisticated mathematics to give you the tools to become a financially responsible young adult. The course employs algebra, probability and statistics, and geometry to solve financial problems that occur in everyday life. **This course may be taken concurrently with PreCalculus or Calculus.**

3068 Algebra III/Trigonometry

This course is designed for students who plan to go to college in a major that requires higher mathematics; however, their algebra skills do not currently support the choice of Pre-Calculus. This course will reinforce the concepts from Algebra I and II as well as preview some pre-calculus topics in order to prepare students for success in a Pre-Calculus course at CV or in college.

3071 *AP Statistics

This course is designed for those students who have an interest in learning the concepts of statistics and data analysis. Some of the topics covered are measures of central tendency, variance, hypothesis testing, several types of data graphs, and various kinds of distribution. Students enrolled in this course are expected to take the Statistics Advanced Placement test. **This course may be taken concurrently with Calculus.**

3073 Statistics L2

This course is a full year course designed to be an introduction to statistical concepts. Topics explored will include describing sets of data both numerically and graphically, data collection issues related to sampling distributions, hypothesis testing, regression analysis, and confidence intervals for normal distributions. **This course may be taken concurrently with PreCalculus or Calculus.**

4070 Business Mathematics

This course builds basic mathematical skills, vocabulary, and problem solving techniques. Students will explore the use of mathematics in many areas of business including saving, borrowing, investing, buying, and selling, payroll and taxes, transportation, income and expenses, and profit and loss statements. One of the aims of this course is to take a student from his/her viewpoint as a consumer to the viewpoint of a business person. Although this is a Business Course, **it may be used as one of the mathematics credits required for graduation.**

3090 Computer Programming 1

1.0 cr

Students will explore the role technology plays in their lives as well as study the fundamentals of computer science, review hardware and software, and learn how the internet functions. Students will also discover how to create and build their own website using HTML and CSS and learn basic and complex commands and sequences as they become familiar with programming languages like JavaScript and Python Programming. This course also covers data collection methods, access rights, protocols, and security. In the second semester, students will learn the difference between web development and web application development as well as further explore Advanced Python, HTML, and JavaScript. They will also examine software engineering concepts, learn more about security, privacy, and ethics in technology, and explore the wide variety of careers in computing. *Please note this course is only available for students in grades 10-12. (eDynamic)*

3092 Computer Programming 2

0.5 cr

Students will build on their learning from Computer Programming 1. They will continue learning about JavaScript, Python, and HTML Programing. *Please note this course is only available for students in grades 10-12.* (eDynamic)

MUSIC

Student interested in participating in music ensembles should contact David Gilbert (dgilbert@cvschools.org), CVVA Principal, to make scheduling arrangements. Please note that CVVA students participating in music ensembles will be required to provide their own daily transportation to the ensemble classes.

6575 Music Appreciation

0.5 cr

Have you ever heard a piece of music that made you want to get up and dance? Cry your heart out? Sing at the top of your lungs? Whether pop, classical, or anything in between, music provides a powerful way for people to celebrate their humanity and connect with something larger than themselves. Music Appreciation: The Enjoyment of Listening not only will provide a historical perspective on music from the Middle Ages to the 21st century, but it will also teach you the essentials of how to listen and really hear (with a knowledgeable ear) the different music that's all around you. Learning how to truly appreciate sound and melody is the best way to ensure a continued love of this delightful art form. (eDynamic)

6068 Marching Band

Prerequisite: Conference with Marching Band Director

Marching Band is open to 9th-12th grade students and is comprised of students playing woodwind, brass, or percussion instruments, in addition to the color guard section. Marching Band rehearses outside of the standard school day, and requires summer participation. Attendance at all rehearsals and performances is mandatory. Students will receive a Pass/Fail grade. The band rehearses twice weekly, and Summer Band Camp is also required. A specific schedule can be obtained from the director.

****Additional music electives may be available upon request through CV's partnership with CAOLA. Students interested in a different elective course in this department should contact Mr. David Gilbert (dgilbert@cvschools.org), CVVA Principal, for more information.****

SCIENCE

2091 *H Environmental Science

2090 Environmental Science L2

2093 Environmental Science L3

Students will explore the interactions between humans and Earth's geophysical systems in an effort to understand the outcomes of our actions, and build a sustainable future. This course is designed to help incoming students to improve their science literacy in preparation for more advanced study throughout their high school years.

2021 *H Biology (Pre-AP)

Prerequisite: Environmental Science. Completion of a summer project is required for all students enrolled in this course.

2023 Biology L2

Prerequisite: Environmental Science

2025 Biology L3

Prerequisite: Environmental Science

Biology is a standards-based course designed to prepare students for the 10th grade Biology Keystone exam. To that end, it covers a diversity of topics ranging from the biochemistry of life to the organization and evolution of living systems. In order to prepare students for the demands of subsequent coursework, the Honors curriculum will cover a greater breadth and depth of topics, resulting in significant increases in the number of homework assignments, writing engagements, and

independent study hours. All students who complete this course will take the Biology Keystone exam in the spring.

- 2051 *H Chemistry (Pre-AP)**
Prerequisite: Algebra II AND H or L2 Biology
- 2053 Chemistry L2**
Prerequisite: H or L2 Geometry AND Biology
- 2054 Chemistry L3**
Prerequisite: Algebra I AND Biology

Chemistry will provide students with both a technical and practical understanding of the science of chemistry and its numerous applications to our daily lives, as well as present a mathematical foundation for dealing with fundamental principles, theories, and concepts of chemistry. Since the Honors curriculum is designed to prepare students for subsequent math-intensive coursework, additional breadth and depth is achieved by increasing the mathematical demands and pacing of this course; successful students in this program will be confident and dedicated math students with a willingness to complete homework assignments and see the teacher for help, as needed

- 2081 *AP Physics I**
Prerequisite: Pre-Calculus w/ Trigonometry

In preparation for the AP Physics I exam, this course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; simple harmonic motion. Additionally, this course will introduce topics in magnetism, electrostatics and electric circuits in order to prepare students for a two-semester, calculus-based college physics program (designed for pre-health candidates, physics majors and engineers). Successful students will be well-prepared to handle a rigorous algebraic and trigonometric approach to problem solving in preparation for the AP Physics I exam.

- 2083 Physics I L2**
Prerequisite: Concurrent enrollment in a math course beyond Algebra II

Students will explore the relationship between the concepts and mathematics found in introductory college physics courses. A mixture of algebra and trigonometry based problem solving as well as the demonstration of conceptual understanding is required in this course.

- 2084 Conceptual Physics L2**
Prerequisite: Algebra II

This course is intended for students entering college, technical school, or the workforce who do not need a technical understanding of Physics and / or those who do not plan to complete a college physics course designed for science majors or pre-health candidates. To this end, the material encountered in a college physics course will be addressed using a project-based conceptual approach that limits the mathematical proficiency necessary for success.

- 2035 Wildlife Biology & Ecology**
Prerequisite: Biology and Chemistry

This course is designed to prepare students for wildlife-related professions by focusing on the following: forest ecology, ornithology, mammalogy, aquatic biology and herpetology with an emphasis placed on practices in wildlife management. Lab activities, vertebrate dissections and outdoor field work are a major part of the daily work for this class, so students should be prepared to get dirty!

- 2095 *H Anatomy & Human Physiology**
Prerequisite: H or L2 Biology AND H or L2 Chemistry

Completion of a summer project is required for all students enrolled in this course. This course is designed for students who have a strong desire to pursue a career in medicine, health care, sports medicine, physical therapy, nursing and other sciences. The focus is on anatomical studies of various systems, as well as the physiology of each system. Students are required to perform an extensive dissection of a pig and other mammalian organs. This course may serve as the prerequisite for CASE Animal Science in place of Introduction to Agriculture, although preference will be given to Agriculture students if seats are limited.

2045 *IB Sports, Exercise, & Health Science

Prerequisite: H or L2 Biology AND H or L2 Chemistry

Completion of a summer project is required for all students enrolled in this course. The course will incorporate the traditional disciplines of anatomy & physiology, biomechanics, kinesiology, psychology and nutrition, and place them in the context of sports, personal training, exercise, physical training and health. In preparation for the IB SL exam, students will cover a range of core and option topics and carry out practical (experimental) investigations in both laboratory and field settings. Students enrolled in this course will work collaboratively with the IB Chemistry students on a Group IV Project to analyze a common topic or problem. Dissection of a mammal will be required. Enrollment in this course will be limited to two sections of 24, with IB diploma students given scheduling priority in order to complete their diploma requirements; remaining seats will be determined based on availability and application, if necessary.

2033 *AP Biology

Prerequisite: H Biology, exemplary performance in Biology L2 AND H or L2 Chemistry

Completion of a summer project is required for all students enrolled in this course. This course is the equivalent to a two-semester introductory college biology course and follows the guidelines required by the College Board as a preparation for the AP Biology exam given in the spring. This course may serve as the prerequisite for CASE Animal & Plant Biotechnology (8610) in place of Introduction to Agriculture, although preference will be given to Agriculture students if seats are limited.

2061 *AP Chemistry

Prerequisites: H or L2 Chemistry (H Chemistry is highly recommended) AND Pre-Calculus with Trigonometry

The advanced placement course is equivalent to a two-semester introductory college chemistry course and follows the guidelines required by the College Board as a preparation for the AP exam given in the spring. This curriculum is beneficial to students interested in science, engineering, or medicine.

2070 *H Biochemistry

Prerequisite: H or L2 Algebra II AND H or L2 Chemistry

Students will learn to use chemical methods to solve biological problems with an emphasis placed on laboratory investigations. This curriculum is beneficial to students interested majoring in the areas of biology, chemistry or health related fields (such as nursing, pre-med, etc.).

2085 *AP Physics C

Prerequisite: AP Physics I teacher recommendation AND Calculus

This intensive second year physics course is aligned with a two-semester calculus-based college physics course. It is designed for those students planning a career in physics, mathematics or engineering. Students will be encouraged to take one or both of the Advanced Placement C exams in Mechanics, or Electricity and Magnetism in May.

2096 *AP Environmental Science

Prerequisite: H or L2 Biology AND H or L2 Chemistry

This course equips students with the scientific principles required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving them. This course fulfills the Earth Processes graduation requirement so preference will be given to students who need to fulfill their graduation requirement.

SOCIAL STUDIES

1012 *H World History

1013 World History L2

1014 World History L3

1015 World History Skills

The study of World History begins with the foundation of geography and historical thinking skills. Students will apply these foundational concepts to the study of World History starting with an overview of the Post-Classical Era and ending with present day World History. Throughout the course, students will participate in activities designed to improve their reading, writing, social studies literacy and critical thinking skills.

1011 *AP World History

AP World History is designed to give students an overview of the processes that have shaped the social, political, environmental, cultural, and economic patterns throughout the world from approximately the foundations of civilization to the present day. This course emphasizes an application of factual understanding to an analytical framework, asking students to investigate the past in the ways and methods of a historian.

1021 *AP US Government & Politics**Prerequisite: Teacher Recommendation**

The Advanced Government course is designed to build analytical skills and knowledge of government. Students will not only look at the theory behind the workings of our government, but will also be applying these theories to current events. The course will require critical thinking and extensive outside requirements in reading, research, and writing. Emphasis will be placed upon primary research and will focus upon higher cognitive levels of learning. Students will explore government from theoretical and practical aspects:-

1022 American Government L2**1023 American Government L3**

The study of American Government will focus on our foundational documents including the Constitution. The three branches of government, the state and local governments and the role of the individual within the system and his/her responsibility to the community will further be explored through the use of various texts and current events. Throughout the course, students will participate in activities designed to improve their reading, writing, social studies literacy and critical thinking skills.

1031 *AP Microeconomics**Prerequisite: Teacher Recommendation**

The Advanced Economics course is designed to build analytical skills and knowledge of economics. The course will require critical thinking and extensive outside requirements in reading, research, and writing. Emphasis will be placed upon primary research and will focus upon higher cognitive levels of learning. Advanced Economics focuses on the theoretical aspects of microeconomics including comparative advantage, supply and demand, cost-analysis, and factor markets. Students will explore economics from theoretical and practical aspects and will be expected to apply concepts to current events.

1032 Introduction to Economics L2**1033 Introduction to Economics L3**

In Economics, students will have the opportunity to investigate the basic principles of economic thinking while studying elementary economic theory and the roles that households, businesses, and the government play in our economy. Students will participate in activities designed to increase social studies literacy and critical thinking skills. Emphasis is placed on vocabulary skills and the development of reading and writing skills necessary for success in the future. Frequent application of economic thinking to real-world problems and current events will be present throughout the course.

1034 Government & Economics Skills

This course is designed to make students aware of the privileges and responsibilities of being a citizen of the United States. One semester of the course aims to prepare students with the knowledge that they will need as future voters. We will study the structure, powers, and responsibilities of our government as well as the processes that are used to create public policy. Emphasis will be placed on the core ideals and values that make the American political system unique and the way that our government operates at the national level. The other semester of the course will focus on economics. Considering the economy on a larger scale as well as personal finances, our goal is to develop skills

that are useful in and outside of the classroom.

1041 *AP US History

Prerequisite: Teacher Recommendation

The Advanced Placement course in U.S. History is designed to provide students with analytical skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. Students will learn to evaluate historical sources and their relevance to a given problem. The Advanced Placement course will require critical thinking and extensive outside requirements in reading, research, and writing.

1044 US History L2

1045 US History L3

U.S. History is designed to present a contemporary view of the American experience. From the beginning of the Depression through the present day, Americans have witnessed revolutionary changes in our role at home and abroad. Since the course is primarily focused on contemporary history, it allows students to draw on recent resources and people who experienced or were exposed to many events as they occurred. By taking this course, students will have a greater understanding and appreciation of the United States today and the active role they should play as citizens.

1051 *AP Human Geography

Prerequisite: Teacher Recommendation

The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

1052 Contemporary Global Issues L2

1053 Contemporary Global Issues L3

Contemporary Global Issues is a thematic overview of issues faced globally in the twenty-first century. Students will be asked to critically assess contemporary global issues from a variety of cultural and disciplinary perspectives. Most importantly, through the study of these themes/issues, students will gain a sense of the interconnectedness of our world. They will be stimulated with demanding written materials, discussion processes, and problem-solving techniques. Evaluations will stress a blend of objective and subjective materials.

Social Studies Electives

1071 *AP Psychology

Prerequisite: Teacher Recommendation

The Advanced Placement Psychology course is equivalent to an introductory psychology course at the collegiate level. The AP Psychology course is designed to introduce students to the scientific study of the behavior and mental processes of human beings. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their science and practice. Students will develop a better understanding of the human mind. They will take the information in class beyond the theories and illustrate how scientific research can be used to make positive changes in our everyday lives.

1072 Psychology

Psychology is a full year course designed to give the student a basic familiarity with some of the fundamental topics and hypotheses in modern psychology. This is a hands on course where students learn by doing. Instead of simply listening to a teacher or instructor lecture about a given subject, the student engages with the subject matter to solve a problem or create something. By learning concepts in psychology we can learn more about ourselves, personality, how to handle stress, identify our intellectual strengths and understand emotions, how do we learn, and in what ways are we conditioned to act and think in certain patterns. This course is designed for the student who will most likely never again be exposed to the concepts of psychology, but it can also serve the college bound student in that it will provide a good background for college level introductory psychology course.

1083 Sociology L2

This is a college prep course designed as an introduction to show how sociologists investigate, describe, and analyze social life. Since sociology is the systematic study of human society, areas of study include: culture, socialization, collective behavior, deviance and family. Sociology will also take an in-depth look at social problems such as crime, prejudice and racism. If you enjoy discussions, reading and writing, projects and working in groups, then sociology is for you! An online E-Portfolio on Google Classroom is an essential part of this course. The E-Portfolio pertains to each unit of study and aids in the overall study of society. As you review the topics just mentioned, it should also be realized that each of these can be an introduction to issues that are related to a vast array of occupations that are a part of your future. This is a college prep level course so students should be prepared to be challenged accordingly.

1084 Anthropology

1.0 cr

What makes us human? Is it our ability to use language? Is it our abstract thinking skills or our use of tools and technology? In Anthropology students will trace the history of homo sapiens and explore our evolutionary trail. This course offers an anthropologic lens to observe our movement from cave dweller to modern human. It sheds light on how we forged our way and developed all of the things that make us human, such as our cultures, languages, and religions. We, as humans in the 21st century, are highly intelligent, innovative people with astounding technological ability – how did we get this way? The second semester will focus on how different locations shape various cultures and, in turn, how these cultures shape people's lives around the world – from the jungles of the Amazon to the islands of Indonesia. Many of our ancient cultures and languages were shaped by the geographical locations of our ancestors, and in this course, you will begin to visualize new ideas about how ancient cultures flourished through examining their views on life, death, art, and survival. In looking back and learning about cultures through the ages, we are better equipped to understand the world around us today. (eDynamic)

SPECIAL EDUCATION

In compliance with both Federal (IDEA Part 300) and Pennsylvania law (22 Pa. Code Chapter 14), the Cumberland Valley School District provides to all eligible students a free and appropriate public education. For the purposes of definition, the term “eligible” refers to students who meet the two-part criteria: 1) student has a documented disability and, 2) student needs special education as determined by the district's evaluation team. Both qualifications must be met in order to be eligible for special education.

Staff, administration, and parents work closely together in developing an appropriate program of education for each eligible student. This specially designed instructional plan for an eligible student is referred as an Individualized Educational Program (IEP). Educating students with disabilities and addressing their individual learning needs, in the least restrictive environment, is the responsibility for each and every IEP team.

The district's special education programming is aligned to provide an individually designed program to meet student needs in accord with the student's IEP. The instructional learning environment could be the general education setting, an alternate setting, or a combination of the two. Support could include a special education teacher, a classroom assistant (paraprofessional), a related service provider, and/or specially designed instruction targeted to address the individual needs of the student. Decisions regarding course selection and levels of courses will be made by the IEP team and will be documented in each student's IEP.

Each eligible student is assigned a Special Education case manager. The case manager will be responsible to review with each of their students and their respective parents, the finalized course selection sheets prior to final submission to the guidance office. This will ensure each student's course selection sheet is aligned to their IEP, and should therefore minimize the need for schedule adjustments prior to or after the start of the next school year. Any revision to a student's IEP that may impact their course selections for the following school year must be documented and submitted (by the case manager) to the student's school counselor prior to the close of the school year. As for all students, not all offered classes (i.e. electives) may be made available due to low enrollment and/or conflict with other required courses (i.e. credited content courses and those specifically outlined in the IEP).

Your child's Special Education case manager will be in contact with you with additional information regarding the course selection process.

Course #	Course Title	Grade	Credits
Learning Support			
8301	Reading	9	1.0-0.5
8303	Reading	10-12	1.0-0.5
8401	English 9	9	1.0
8402	English 10	10	1.0
8403	American Literature	11	1.0
8404	World Literature	12	1.0
8417	Math Foundations A	9	1.0
8418	Math Foundations B	10	1.0
8406	Algebra 1A	10	1.0
8407	Algebra 1B	11	1.0
8408	Geometry	11-12	1.0
8409	Consumer Math	11-12	1.0
8410	World History	9	1.0
8411	American Gov't/Economics	10	1.0
8412	US History	11	1.0
8413	Contemporary Global Issues	12	1.0
8414	Environmental Science	9	1.0
8415	Biology	10	1.0
8419	Chemistry	11	1.0
see selection sheet	Academic Strategies	10-12	0.25/0.5/1
Emotional Support			
8774	World History	9	1.0
8775	American Gov't and Economics	10	1.0
8776	US History	11	1.0
8777	Contemporary Global Issues (CGI)	12	1.0
8773	Environmental Science	9	1.0
8779	Biology	10	1.0
8781	Chemistry	11	1.0
8782	English 9	9	1.0
8783	English 10	10	1.0
8784	American Literature	11	1.0
8785	World Literature	12	1.0
8759	Math Foundations A	9	1.0
8760	Math Foundations B	10	1.0
8761	Algebra 1A	10	1.0
8762	Algebra 1B	11	1.0
8763	Geometry	11	1.0
8764	Algebra II	12	1.0
8765	Consumer Math	12	1.0
8786	Experiential Learning	9-12	1.0
see selection sheet	Academic Strategies	9-12	0.25/0.5/1
Autistic Support			
8613	Reading	9	1.0
8614	Reading	10-12	1.0
8601	English 9	9	1.0
8602	English 10	10	1.0

8603	American Literature	11	1.0
8604	World Literature	12	1.0
8624	Math Foundations A	9	1.0
8625	Math Foundations B	10	1.0
8605	Algebra 1A	10	1.0
8606	Algebra 1B	11	1.0
8607	Geometry	12	1.0
8626	Algebra II	12	1.0
8627	Consumer Math	12	1.0
8608	World History	9	1.0
8618	American Gov't/Economics	10	1.0
8609	US History	11	1.0
8619	Contemporary Global Issues (CGI)	12	1.0
8610	Environmental Science	9	1.0
8611	Biology	10	1.0
8617	Chemistry	11	1.0
8615	Social Skills I	9	1.0
8616	Social Skills II	10-12	1.0
see selection sheet	Academic Strategies	10-12	0.25/0.5/1
8866	VB (Verbal Behavior Programming)	10-12	1.0
Life Skills Support			
8505	Math Objectives	10-12	1.0
8501	Language Arts Objectives	10-12	2.0
8128	Social Science	10-12	1.0
8513	Transition Skills	11-12	1.0
8518	Transition Skills-Job Site	11-12	1.0
8512	Independent Living and Social Skills	10-11	1.0
8514	Vocational Lab	10-12	1.0
8520	Strategy Instruction 10-11	10-11	1.0
8521	Strategy Instruction 12	12	1.0
8516	Cooking Skills	10-12	1.0
5013	Adapted Physical Education & Health	10-12	1.0
8007	Programmatic Reading	10-12	1.0
8140	Employment Skills for Success	10-12	3.0

TECHNOLOGY AND ENGINEERING

7006 Applied Engineering

1.0 cr

Discover how technology has changed the world around us by pursuing technological solutions to everyday problems. While using scientific and engineering methods, learn how electricity, electronic systems, magnets, and circuits work. Understand the design process and bring your ideas to life. Explore how engineering advances your ideas and the world! (eDynamic)

7029 Manufacturing Design & Innovation

0.5 cr

Think about the last time you visited your favorite store. Now picture the infinite number of products you saw. Have you ever wondered how those things made it to the shelves? Whether it's video games, clothing, or sports equipment, the goods we purchase must go through a manufacturing process before they can be marketed and sold. In Introduction to Manufacturing: Product Design and Innovation, you will learn about different types of manufacturing systems as well as career opportunities, including engineers, technicians, and supervisors. As a culminating project, you will plan your own

manufacturing process and create an entirely original product! If you thought manufacturing meant mundane assembly lines, this course will show you how exciting, creative, and practical this industry can be. (eDynamic)

*****Additional technology and engineering electives may be available upon request through CV's partnership with CAOLA. Students interested in a different elective course in this department should contact Mr. David Gilbert (dgilbert@cvschools.org), CVVA Principal, for more information.*****

WORLD LANGUAGE

World language study is valuable to the full development of an individual's potential. The aim is to lead the student to practical control of language skills which reinforce skills in English and facilitate the learning of other languages and familiarity with varied cultures of the world. We strongly recommend that years of language study be consecutive.

Note:

- World Language courses, offered at the Middle School, are the same course and the same curriculum as those offered at the High School.
- A middle school student who successfully completes a World Language course of Level I or beyond will receive a high school credit for that course. That is, the course will count toward the 23-credit graduation requirement and will appear on the student's transcript. The course will not count toward GPA or class rank. If a student takes a high school class in 8th grade, the class may count toward NCAA eligibility.
- World Language requirements can vary from institution to institution. Many colleges will recommend at least two consecutive years of a World Language study, while more selective schools will require three to four years. Because not all colleges will recognize Middle School credits, it is important to investigate college requirements early, in order to make the best decision regarding World Language courses. Students should work closely with their parents and school counselors to decide what is best while continuing to create opportunities in all areas of interest, learning, and achievement.

Year I of language study stresses proper pronunciation, comprehension of oral and written language, oral expression, written response employing proper grammatical constructions, and familiarity with other cultures. These are accomplished within the context of daily situations encountered by language speakers. Note: Some students may have previously taken this course at the middle school level.

4013 French I

4021 German I

4043 Spanish I

Year II of language study reviews material from year I and develops further the language skills of listening, speaking, reading, and writing. There is practice in oral and written exercises as well as exposure to the various customs within the target culture. Note: Some students may have previously taken this course at the middle school level.

4014 French II
Prerequisite: French I AND teacher recommendation

4022 German II
Prerequisite: German I AND teacher recommendation

4044 Spanish II
Prerequisite: Spanish I AND teacher recommendation

Year III of language study increases the emphasis on reading and writing the language. Further review and development of grammatical forms and syntax are employed in the student's speaking and writing. In addition, use of the language in

the classroom at all times is required after the first marking period. Active student participation is an integral part of this course.

- 4017 French III**
Prerequisite: French II AND teacher recommendation
- 4027 German III**
Prerequisite: German II AND teacher recommendation
- 4048 Spanish III**
Prerequisite: Spanish II AND teacher recommendation
-

Year IV of language study fully integrates the skills of listening, speaking, reading, and writing. Selections from target language literature with accompanying historical background are covered. Current events are discussed and viewed when appropriate. Previously learned grammar is reviewed and advanced grammatical concepts are practiced and developed. Use of the target language is required in the classroom at all times. Active student participation is an integral component of this course.

- 4019 *H French IV**
Prerequisite: French III AND teacher recommendation
- 4025 *H German IV**
Prerequisite: German III AND teacher recommendation
- 4049 *H Spanish IV**
Prerequisite: Spanish III AND teacher recommendation
-

Year V of language study continues to develop language acquisition by studying and manipulating the language through culturally embedded activities. Advanced grammatical concepts will be integrated through authentic materials focusing on all four areas of proficiency; listening, speaking, reading and writing. Use of the language is required in the classroom at all times. Active student participation is an integral component of this course.

- 4020 *H French V**
Prerequisite: *H French IV AND teacher recommendation
- 4028 *H German V**
Prerequisite: *H German IV AND teacher recommendation
- 4042 *H Spanish V**
Prerequisite: *H Spanish IV AND teacher recommendation
- 4107 *IB Spanish SL II**
Prerequisite: IB Spanish SL I AND teacher recommendation
-

Year VI of language study provides an opportunity to develop precision and increased fluency with continued regard to the four domains: reading, writing, listening and speaking. Culturally embedded activities further students' language proficiency. Advanced grammar concepts remain the focus and are integrated through the use of authentic materials. Use of the language is required in the classroom at all times. Active student participation is an integral component of this course.

- 4018 *H French VI**
Prerequisite: AP French Language/IB French SL II AND teacher recommendation
- 4016 *AP French Language**
Prerequisite: *H French V AND teacher recommendation
- 4026 *H German VI**
Prerequisite: AP German Language/IB German SL II AND teacher recommendation
- 4024 *AP German Language**

Prerequisite: *H German V AND teacher recommendation

4046 *AP Spanish Language

Prerequisite: *H Spanish V/IB Spanish SL II AND teacher recommendation

APPENDIX

Appendix A: NCAA Information.....

Appendix B: Cumberland Perry Area Vocational Technical School.....

APPENDIX A: NCCA Eligibility



If you want to play sports at an NCAA Division I or II school, start by registering with the NCAA Eligibility Center at [NCAA Eligibility Center](https://www.ncaa.org/eligibility-center) during your sophomore year.

Core Courses

NCAA schools require college-bound student-athletes to build a foundation of high school courses to prepare them for the college classroom. Not all high school classes count as NCAA core courses. Only classes in English, math (Algebra 1 or higher), science, social studies, or foreign language may be approved as NCAA core courses.

Visit [NCAA Eligibility Center](https://www.ncaa.org/eligibility-center) for a full list of Cumberland Valley's core courses. The NCAA also produces the [Guide for the College Bound Student Athlete](https://www.ncaa.org/eligibility-center/guide-for-the-college-bound-student-athlete), which provides important information on the college athletics process.

** The NCAA has very specific guidelines with regard to online courses. Please check with your counselor to ensure that any requested online courses are approved prior to enrollment.

Grade-Point Average

The NCAA Eligibility Center calculates your grade-point average (GPA) based on the grades you earn in NCAA-approved core courses.

Courses Taken Before High School

High school classes taken while in middle school may count toward your 16 cores courses if it appears on your school's list of NCAA-approved courses and is shown on your high school transcript with grade and credit.

The following are Cumberland Valley High School's approved courses:

English

English 9/H
English 10/H
American Lit
World Lit
AP English Language
AP English Literature 12
IB English HL I/HL II
College English 101
College English 102

Math

Alg I/H
Alg II/H
Pre-Calculus w/ Trig /H
Calculus CP
Calculus AB AP
Calculus BC AP
Financial Algebra
Geometry I/H
Statistics CP
Statistics AP
IB Math SL I/SL II
IB Math HL I/HL II
IB Math Studies SL
College Math 103

Natural/Physical Science

Anatomy/Human Physiology H (lab)

Astronomy (lab) (0.5 cr)
Biochemistry H (lab)
Biology I/H/AP (lab)
Wildlife Biology & Ecology (lab)
Zoology & Botany H (lab)
Conceptual Chemistry (lab)
Chemistry I/H/AP (lab)
IB Chemistry HL/SL (lab)
Environmental Science (lab)
Environmental Science AP (lab)
Meteorology & Oceanography (lab)
Conceptual Physics (lab)
Physics I (lab)
Physics I AP (lab)
Physics C AP (lab)
IB Physics SL (lab)
IB Sports Exercise & Health Science (lab)
College Biology 111

Social Studies

Anthropology (0.5 cr)
Contemporary Global Issues
Human Geography/AP
Psychology/AP
IB Psychology SL
Sociology

US History/AP
World History/H/AP
IB History HL I/HL II
College History 103
College History 104
Am. Gov't/AP (0.5 cr)
Economics/AP (0.5 cr)

Additional Core Courses

French 1, 2, 3, 4H, 5H
AP French
Language
IB French SL
I/SL II
German, 1, 2, 3, 4H, 5H
AP German
Language
IB German SL
I/SL II
Spanish 1, 2, 3
AP Spanish
Language
AP Spanish
Literature
IB Spanish SL
I/SL II

NCAA ACADEMIC STANDARDS

<p style="text-align: center;">DIVISION I</p> <p>To play sports at a Division I school, you must graduate high school and meet ALL the following requirements:</p> <ol style="list-style-type: none"> 1. Complete 16 NCAA core courses: <ul style="list-style-type: none"> ● 4 years of English ● 3 years of math (Algebra 1 or higher) ● 2 years of natural or physical science (including one year of lab science if your high school offers it) ● 2 years of social science ● 1 additional year of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy ● 4 years of additional courses (any area above, foreign language, or comparative religion/philosophy) 2. Complete 10 core courses, including seven in English, math or natural/physical science, before the start of your seventh semester. Once you begin your seventh semester, you may not repeat or replace any of those 10 courses for GPA improvement. 3. Earn at least a 2.3 GPA in your core courses 4. Earn an SAT combined score or ACT sum score that matches your core-course GPA on the Division I sliding scale for students enrolling on or after August 1, 2016. 	<p style="text-align: center;">DIVISION II</p> <p>To play sports at a Division II school, you must graduate high school and meet ALL the following requirements: <i>Before August 1, 2018:</i></p> <ol style="list-style-type: none"> 1. Complete 16 high school core courses. 2. Earn at least a 2.000 GPA in your high school core courses. 3. Earn a combined SAT score of 820 or an ACT sum score of 68. <p><i>After August 1, 2018:</i></p> <ol style="list-style-type: none"> 1. Complete 16 high school core courses. 2. Earn at least a 2.200 GPA in your high school core courses. 3. Earn the SAT or ACT score that matches your core- course GPA (minimum 2.200) on the Division II competition sliding scale. <p><i>Core Courses for Division II:</i></p> <p>To play sports at a Division II school, you must complete these NCAA core courses:</p> <ul style="list-style-type: none"> ● 3 years of English ● 2 years of math (Algebra I or higher) ● 2 years of natural or physical science (including one year of lab science if your high school offers it) ● 2 years of social science ● 4 additional years of English, math, natural or physical science, social science, foreign language, comparative religion of philosophy ● 3 years additional English, mathematics, or natural/physical science.
<p>DIVISION III</p> <p>Division III schools provide an integrated environment focusing on academic success while offering a competitive athletics environment. While Division III schools do not offer athletics scholarships, 75 percent of Division III student-athletes receive some form of merit or need-based financial aid.</p> <p>If you are planning to attend a Division III school, you do not need to register with the NCAA Eligibility Center. Division III schools set their own admissions and eligibility standards. You can visit NCAA.ORG/d3 or contact the Division III school you are planning to attend.</p>	

APPENDIX B



ADVANTAGES FOR STUDENTS ATTENDING CPAVTS

Earn College Credit - College in the High School Program

The College in High School (CHS) program allows high school students to take college classes while enrolled at CPAVTS during the regular school day. Students who are eligible to take College in the High School courses can earn credits toward high school graduation and credits towards a college degree at the same time. Harrisburg Area Community College or Pennsylvania College of Technology assesses and approves CPAVTS instructors to teach these courses. HACC or Penn College awards college credits to students who complete the courses with a passing grade and all credits are eligible to transfer to other colleges and universities depending on agreements with those schools. For College in the High School course details go to www.cpavts.org.

Earn College Credit - Program of Study (POS) College Articulation Agreements

Twenty programs at CPAVTS are recognized by the Pennsylvania Department of Education as a “Program of Study”. Students in these programs have the opportunity to earn college credit at various post-secondary schools in Pennsylvania provided they meet the following requirements:

1. Graduate from high school
2. Earn at least 2.5 GPA in your program courses
3. Achieve a score of “Advanced” or “Competent” on the NOCTI exam
4. Successfully complete all tasks on the Program of Study task list – requires all three years of a program.

Suggested Course Sequence by the Pennsylvania Department of Education for Programs of Study
For Students Enrolled in Career and Technical Programs:

Grade 9	Grade 10	Grade 11	Grade 12
English	English	English	English
Earth Science	Biology	Chemistry	Elective
Social Studies	Social Studies	Social Studies	Social Studies
Algebra I or Pre-Algebra	Geometry or Algebra I	Algebra II or Geometry	Additional Math
Physical Education	Physical Education	Physical Education	Physical Education
Electives	CPAVTS Program	CPAVTS Program	CPAVTS Program

Additional information on Program of Study and which colleges are participating can be found at www.cpavts.org.

Earn a Pennsylvania Skills Certificate

The Pennsylvania Skills Certificate was created by the PA Department of Education to recognize career and technical education students who have shown advanced skill achievement in their career and technical program. Students must complete 50% of the program and be seniors to be eligible to earn a PA Skills Certificate.

To earn the Pennsylvania Skills Certificate, students must achieve at the advanced level on the end of program NOCTI test. The test consists of two parts – written and performance. The written test covers factual knowledge, technical information, understanding of academic principals and problem solving related to the technical field. The performance test allows students to demonstrate their skills to industry professionals who proctor the exam.

Earn College Credits through College in the High School and Dual Enrollment

Cumberland Perry AVTS offers multiple programs that College in the High School programs through Penn College. The program called Penn College Now allows for students to gain college credits while attending CPAVTS and learning the skills needed to gain competitive employment in one's field of study.

Other college credit options include dual enrollment through Harrisburg University and Harrisburg Area Community College. We also offer universities and colleges that we partner with for students to gain college credits while at CPAVTS. Throughout the course guide you will find each program is highlighted with available dual enrollment and College in the High School courses. In 2019-2020, 51 students at Cumberland Perry AVTS gained college credits.

Earn Industry-Recognized Certifications

CPAVTS have the opportunity to earn industry certifications which are specific to their career program. Examples include PA State Inspection certification for Auto Tech students and Certified Nursing Assistant certification for nursing students. A complete list of certifications is listed under each program description. During the 2019-2020 school year, over 260 CPAVTS students earned at least one industry certification.

CONSTRUCTION AND MAINTENANCE

CARPENTRY

There are two types of carpentry work: rough and finish. Rough carpentry includes framing, boarding, sheathing, bracing, roofing, and studding; finish carpentry includes the installation of finished flooring, stair work, siding, trim, wallboards, windows, and hardware. Students in the **Carpentry** program will learn the basics of both rough and finish carpentry, including such areas as blueprint reading, using power and hand tools, framing techniques, installing trim and hardware, estimating, and identifying materials. Many of these skills are developed through live work projects performed throughout the school. Safety instruction is emphasized throughout the program.

Potential Career Pathways **(w/ 2020 Median Wage)**

Carpenters-\$46,080.00
Construction Laborers-\$37,920.00*
Construction Managers-\$95,260*
Supervisors-Construction & Ext. Workers-\$68,310*
Construction and Building Inspectors-\$57,110
Cabinet Makers & Bench Carpenters-\$36,410
...and many more!

Industry Certifications

OSHA-10
ASHI Basic First Aid
ASHI CPR & AED
JLG Aerial Work Platform
JLG Material Handler
JLG Scissor Lift
PA Builders Association

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation 2020

ELECTRICAL CONSTRUCTION AND MAINTENANCE

Students in the **Electrical Construction & Maintenance** program receive classroom training and practical experience in the installation of circuits, switches, conduits, circuit breakers, and other electrical devices; instruction includes the proper use and care of hand tools and equipment used to install electrical systems on a construction site. Students learn to connect and disconnect electrical equipment and determine proper installation and operation of electrical work, apply procedures used in interior circuits and outlets, and troubleshoot electrical malfunctions. Special emphasis is placed on the National Electric Code Specifications used in residential, commercial, and industrial electrical construction projects.

Potential Career Pathways
(w/ 2020 Median Wage)

Electrical Engineers-\$98,530*
Electrical Power-Line Installers & Repairers
\$81,380.00
Supervisors-Construction & Ext. Workers-\$68,310*
Electricians-\$57,300.00*
Security and Fire Alarm Installer-\$48,970*
...and many more!

Industry Certifications

OSHA-10
JLG Material Handler
NJATC 1st Year Apprenticeship
IEC 1st Year Apprenticeship
PA Builder's Assoc. Skills Cert

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION

The **Heating, Ventilation and Air Conditioning (HVAC)** program provides the fundamentals of installation, repair, and maintenance of equipment and accessory parts used for heating, air conditioning, and cooling systems. Students learn basic electricity as it applies to the electrical power source and activities used in air conditioning, heating, and refrigeration units. Various equipment and training simulators are used to teach basic refrigeration in chilling and freezing systems. They will learn to solder and braze while developing skills required for the installation, repair, and maintenance of air conditioning, heating, and refrigeration units. Instruction includes: connecting ducts, refrigerant lines, and electrical hookups to power sources; the removal and/or replacement of parts by using torches, electrical meters, testing equipment, gauges, and hand tools; diagnosing unit breakdowns; disassembling and reassembling systems; making adjustments to ensure efficient operations; and reading basic blueprints and writing diagrams. The program also covers many of the basic skills needed in the plumbing trade, providing these students interested an opportunity to pursue a career in plumbing.

Potential Career Pathways
(w/ 2020 Median Wage)

Energy Engineers-\$99,040
HVAC Mechanics & Installers-
\$51,880.00
Geothermal Technicians-\$39,830
...and many more!

Industry Certifications

OSHA 10
EPA 608
Pa Builder's Association Skills Cert.

College Credits
(Offered Thru HACC)

HVAC 100-EPA Refrigeration
HVAC 101-Basic Elec. Func.
HVAC 103-Fund. Of A/C
HVAC 109-Heating Systems

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

HORTICULTURE AND LANDSCAPING

There are several career pathways in the **Horticulture** program. Greenhouse managers, soil and plant scientists, groundskeepers, and landscape designers are just a few of the occupations in this wide-ranging field. Students spend time in the greenhouse, classroom, and outdoors as they learn identification, botany, proper plant care, and other factors impacting care and growth of plant materials. This knowledge is then utilized in the design and preparation of decorative and functional sites. Topics include sustainable practices such as hydroponics and environmental issues facing today's society, design and installation of plants, ponds, and hardscaping, laws and zoning regulations, business ethics and practices, safety and equipment operation, floral design, turf management and irrigation, and other related areas. We also offer college in the high school along with certifications for OSHA. Come explore the opportunity waiting for you!

Potential Career Pathways
(w/ 2020 Median Wage)

Farmworkers/Laborer (Greenhouse)-\$32,070
Landscape/Groundskeeper-\$31,600
Supervisor-Landscapers and Groundskeepers-\$49,370*
Pesticide Handler, Sprayer, Applicator-\$35,840
Grounds Maintenance Workers-\$32,090*
Soil and Plant Scientist-\$63,200
...and many more!

Industry Certifications

OSHA 10
PA Certified Horticulturalist Assoc.
Pesticide Certification

College Credits
(Offered thru Pennsylvania Coll. Of Tech.)

HORT 101-Intro. Ornamental Horticulture
HORT 113-Ornamental Plants

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

MASONRY

The **Masonry** program provides the fundamental skills needed to work with bricks, blocks, and concrete. Students learn brick and block laying; mortar mixing; scaffold construction; building construction; the proper use of masonry tools; and how to read blueprints to determine an accurate brick layout following the builder's specifications. Additionally, students check alignment and positioning of bricks by using a dry course; check for horizontal or vertical straightness by using a mason's level; gauge lines, and plumb lines; and use story gauge rods to check work. Special emphasis is placed on mortar mixing and proper spreading of mortar to ensure accurate spacing of the joints. Students learn the safe use and proper care of hand tools such as trowels, jointers, rules, squares, brick hammer, mason levels, and gauge lines.

Potential Career Pathways (w/ 2020 Median Wage)

Brickmason and Blockmason-\$55,320
Cement Masons/Concrete Finishers-\$54,910
Tile and Stone Setters-\$54,240
Helpers-Brick/Block/Stonemason-\$46,130
...and many more!

Industry Certifications

OSHA 10
JLG Material Handler
PA Builder's Assoc. Skills Cert.

College Credits

(Offered Thru Pennsylvania Coll. Of Tech.)

BCT 234-Masonry Principles-PCT

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

ARTS AND TECHNOLOGY

ADVERTISING ART & DESIGN

A large percentage of merchandising and advertising for modern promotion is done through the medium of **Advertising Art and Design**. The purpose of this course is to help prepare students for an entry-level job or to prepare the student to advance into post-secondary training at colleges and art schools. Throughout the program, students will maintain a portfolio to promote their work and talent when they graduate. The major emphasis is on the basic principles of design: color, development of skills, exploration of media, and Advertising Art and Design practices. Special emphasis is placed on manual illustration and layout skills in the area of art production, technical features of design, layout and composition, and color theory. Students will prepare graphic and advertising projects from the idea stage through to pre-press using the current Adobe Creative Suite software.

Potential Career Pathways (w/ 2020 Median Wage)

Graphic Designers-\$49,150
Desktop Publishers-\$45,390
Special Effects Artists and Animators-\$75,270
Commercial and Industrial Designer-\$68,890
...and many more!

Industry Certifications

Adobe Photoshop
Adobe InDesign
Adobe Illustration

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

COMPUTER NETWORKING

The **Computer Networking** program is designed to give students a broad background in the fundamentals of designing, installing, and maintaining a computer network. Specifically, students will cover the following topics: Computer hardware, troubleshooting, repair, and maintenance, operating systems and software, network technologies, network media and topologies, network devices, network management, network tools and troubleshooting, and security fundamentals. Emphasis will be placed on preparing students to test for industry credentials and certifications.

Potential Career Pathways (w/ 2020 Median Wage)

Information Security Analyst-\$101,390*
Network/Comp. System Admin.-\$80,250
Web Developer-\$72,190*
Computer User Support Spec.-\$53,530*
...and many more!

Industry Certifications

CompTiA A+
CompTiA Net +
CCNA

College Credits

(Offered thru HACC)

CNT 120-Network Tech.

Communications

CNT 125-Network Tech.

Communications

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

COMPUTER PROGRAMMING

In **Computer Programming** students will learn to write, develop, and test code for applications to run on computer systems. In addition, they will learn about analyzing and designing solutions to troubleshoot software issues. Students will cover the following topics: understanding computer basics, interpret logical expressions using Boolean Algebra, create simple programs using algorithms, apply program analysis for evaluating algorithms and testing and debugging systems, and learn about computing practice focusing on data structures and object-oriented program design. Emphasis will be on completing college level course work leading to earning college credits through our agreement with Harrisburg University of Science and Technology.

Potential Career Pathways (w/ 2020 Median Wage)

Software Developers-\$99,280*
 Web Developer-\$72,190*
 Computer Net. Supp. Spec.-\$53,530*
 ...and many more!

2020 PA Dept. of Labor In Demand Occupation List
 2020 PA Dept. of Labor High Priority Occupation
 *ONET Online Bright Outlook Occupation-2020

College Credits (Offered thru Harrisburg University)

CISC 120-Fund. Of Computing
 CISC 160-Data Structures
 CISC-Essential Algorithms

(Visit our website to view all college articulation partners)

HEALTH SCIENCES

DENTAL ASSISTANT

Students in the **Dental Assisting** program learn how to properly aid dentists and dental hygienists. During the course of the program, they will learn the proper techniques that go into every aspect of assisting in a dental office, from taking x-rays to scheduling appointments. To ensure that students are trained as accurately as possible, they practice on modern dental equipment and become familiar with tools common to the profession. Other tasks assigned in this program include learning proper sterilization, instrument transferal, infection control, and preventative healthcare techniques; and assisting with basic dental procedures. While students emerge from the Dental Assisting program fully equipped to work as a dental assistant, further education is required before the student can achieve other positions in the field.

Potential Career Pathways (w/ 2020 Median Wage)

Dental Assistant-\$40,290*
 Dental Lab Technician-\$41,340*
 Dental Hygienist-\$67,910*
 ...and many more!

Industry Certifications

Radiation Health and Safety
 Infection Control
 ASH CPR & AED
 ASHI Basic First Aid

College Credits (Offered thru HACC)

DA 170-Pre Dental Clinic
 DA 171-Dental Assist I
 DA 173-Dental Radiology I

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor High Priority Occupation
 *ONET Online Bright Outlook Occupation-2020

NURSING/NURSING ASSISTANT

Students in the **Nursing Assistant** program explore a variety of health professions to develop an awareness of job opportunities in the field. They develop the skills needed to perform effectively in entry-level positions and to receive a good foundation for continued study. Nursing program students learn patient care, first aid, and laboratory skills, and receive simulated work experiences such as assisting doctors with physical exams; demonstrating laboratory skills; assisting with patient care in the office or hospital; and practicing long-term care settings. Special emphasis is placed on personal hygiene; instrument and equipment identification; telephone training; correspondence and record keeping; basic nursing procedures; infection control; standard precautions; sterilization; and OSHA standards. Students are also given instruction in the sciences related to this field including medical

terminology, anatomy, pharmacology, and laboratory techniques. This program will provide students with an opportunity to learn advanced functions, including clinical experience with patients through affiliation with Bethany Village Retirement Community.

Potential Career Pathways
(w/ 2020 Median Wage)

Nursing Assistants-\$31,590
Home Health Aide-\$25,810
Registered Nurse-\$73,300*
...and many more!

Industry Certifications

Certified Nursing Assistant
Personal Care Aide
ASHI CPR & First Aid + Basic First Aid
Act 31 Mandated Reporter
OSHA 10 (Healthcare)

College Credits

(Offered thru Penn. Coll. Of Tech)

MTR 100-Medical Terminology
Survey
MTR 104-Basics of Medical
Terminology

. (Visit our website to view all
college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

EMERGING HEALTH PROFESSIONALS

The Emerging Health Professionals Programs is SENIOR ONLY program that combines college level dual enrollment courses, job shadowing in various healthcare facilities, and a skills-based patient care curriculum. The program is designed for high school seniors interested in a pathway towards careers requiring post-secondary education in the healthcare industry. The Emerging Health Professionals Program is a half-day program that runs the duration of the school year in conjunction with required high school curriculum. Students spend two days a week taking college courses, two days a week in a health care setting and one day a week developing skills. Students in this program take Anatomy and Physiology I and II at our partner college for a total of eight college credits. Applicants must have completed one year of high school Biology and one year of high school Chemistry with a GPA of 3.0 (or % equivalent). Students must provide their own transportation and are responsible for college dual-enrollment costs. This program has a separate application, which may be found at www.cpavts.org →Programs →Health Sciences →Emerging Health Professionals.

Potential Career Pathways
(w/ 2020 Median Wage)

Family and General Practitioners-\$210,220*
Physician Assistants-\$102,620*
Nurse Practitioners-\$101,950*
Physical Therapists-\$88,450
Program offers various other health career
pathways as well.

Industry Certifications

Certified Nursing Assistant
Personal Care Aide
ASHI CPR & First Aid + Basic First Aid
Act 31 Mandated Reporter
OSHA 10 (Healthcare)

College Credits

(Offered thru Messiah College)

BIO185/185L-Anatomy and Phys. I
BIO186/186L-Anatomy and Phys. II
(Each Course is 4 Credits)

(Visit our website to view all
college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

HUMAN SERVICES AND HOSPITALITY

CULINARY ARTS

Culinary Arts is a program that offers a broad range of skills and knowledge concerning the selection, preparation, and handling of foods. Skill development will focus on: safety and sanitation; dining room service; preparation of food; buffet service; meat cutting; baking; store room procedures; and basic management skills. Unlike the home economics courses offered by most general high schools, the instruction and on-the-job training will be conducted in a fully equipped cafeteria and restaurant at Cumberland Perry AVTS.

Potential Career Pathways
(w/ 2020 Median Wage)

Chefs/Head Cooks-\$59,040*
Food Service Manager-\$55,320
Supervisor-Food Prep. & Servers-\$38,960
Cooks, Ins. & Café-\$30,090
Cooks-Restaurant-\$26,770
...and many more!

Industry Certifications

Servsafe Manager
Servsafe Food Handler
Servsafe Allergens
ACF Certified Fundamentals Cook

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

COSMETOLOGY

The **Cosmetology** program at CPAVTS gives students a great head start to a lucrative career. Our curriculum is rigid, however, by the time student's graduate they will have skills desirable to employers in the Cosmetology industry. Students in the program learn all aspects of hair care, skin care, and nail care, and not only do they practice on mannequins, but they practice on each other as well. Once the student earns 300 hours they are ready to apply skills to customers in the Cosmetology clinic. Instruction also includes resume writing, interviewing, marketing and retailing, so students are prepared to start the job search process. Students need to earn 1250 hours to be eligible to test for the PA Cosmetology License Exam.

Potential Career Pathways
(w/ 2020 Median Wage)

Spa Manager-\$110,630
Skincare Specialist-\$34,090*
Cosmetologist-\$27,290
Manicurist and Pedicurist-\$25,770
...and many more!

Industry Certifications

PA State Board of Cosmetology License

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

CRIMINAL JUSTICE

Students in the **Criminal Justice** program learn administrative procedures, vehicle code and accident investigation, crime codes and criminal investigation, prevention of crime, laboratory procedure, and supplemental activities. Simulated activities develop skills in procedures used in police patrol, criminal investigations, accident investigation, report writing, use of PA Crime Code and Pennsylvania Vehicle Code, first aid, and firearms training. Special emphasis is given towards each student's career objectives. Students develop skills needed to perform effectively in police departments and security agencies, and receive a good foundation for continued study in Police Administration, Criminal Justice or Police Science.

Potential Career Pathways
(w/ 2020 Median Wage)

Supervisor-Police & Detectives-\$91,090*
Detectives and Criminal Investigators-\$83,170
Emergency Management Directors-\$74,590*
Police/Sheriff Patrol Officer-\$68,940*
Correctional Officers/Jailers-\$55,330
...and many more!

Industry Certifications

NIMS IS 100 SERIES
NIMS IS 200 SERIES
NIMS IS 700 SERIES
NIMS IS 800 SERIES
Act 235 Lethal Weapons Training (HACC)
ASHI CPR/AED Pro
ASHI Basic First Aid

College Credits

(Offered thru Penn. Coll. Of Tech)

BEM 101-Intro Emerg. Mgmt. Oper
BEM 103-Hist. & Evol. Of Emerg. Mgmt.

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

EARLY CHILDHOOD EDUCATION

The **Early Childhood Education** program instructs students in the preparation and presentation of nutritional snacks, instructional materials, schedules, and curriculum plans. They will also cover how to manage parent involvement, enrollment, safety and health factors, and discipline. A portion of the program is devoted to child development and preschool child growth patterns. Students will develop techniques that will be applied in the preschool program. Time will be provided to do classroom observations of the preschool children, as well as peer observations while teaching. The student will be responsible for supervising the entire preschool laboratory school program including the children's schedule, attendance, greeting children, enrollment, art, music, science, and

indoor/outdoor play activities. Students have a portion of the preschool day set aside for "Learning Centers", a time in which they work independently with an assigned preschool child in an area that the child is currently strengthening.

Potential Career Pathways
(w/ 2020 Median Wage)

2020 PA Dept. of Labor In Demand Occupation List
*ONET Online Bright Outlook Occupation-2020

College Credits

(Visit our website to view all college articulation partners)

Elementary School Teacher-\$59,670*
Childcare Admin.-Preschool & Daycare-\$48,210
Preschool Teachers-\$31,380
Childcare Workers-\$23,610*
...and many more!

TRANSPORTATION AND LOGISTICS

AUTOMOTIVE COLLISION TECHNOLOGY

The **Automotive Collision Technology** Program provides students with the training necessary to repair damaged automotive vehicles. Instruction includes the repair and replacement of defective parts to restore a vehicle to good condition. Students learn how to operate hydraulic jacks, how to use pry bars, dolly blocks, and mallets for the removal of dents. Various techniques of metal finishing used to fill the damaged areas of vehicles with body plastics and how to grind and sand until the body is smooth are also covered. Our students also learn to replace auto body parts by installing new sections, and by welding new pieces and panels. Instruction in braising, soldering, and welding practices are stressed. Students develop skills in the preparation of surfaces to be painted, matching and mixing paint, and various spraying techniques. In addition, students install trim and glass, use gauges necessary for frame straightening, and estimate the cost of the repair service.

Potential Career Pathways
(w/ 2020 Median Wage)

Industry Certifications

College Credits

(Offered thru Penn. Coll. Of Tech)

Automotive Body & Related Repairers-\$47,970
Insurance Appraiser-\$63,270
Claims Adjuster, Examiner, Investigator-\$66,790
...and many more!

I-CAR
PA Emissions
Cat 1 Inspector
SP/2 Automotive
EPA 609-A/C
OSHA Certification

ABC 100-Intro. to Non-Structural Repair
ABC 104-Intro. to Non-Structural Repair Apps.

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

AUTOMOTIVE TECHNOLOGY

The Automotive Technology program provides students with the entry-level skills and knowledge needed for a career in the automotive field. Specialized classroom and shop exercises are designed to provide instruction in the following areas: engine repair, suspension and steering, brakes, electrical/electronic systems, heating and air conditioning, engine performance, manual drive train and axles, automatic transmission/transaxle, emissions control, hybrid technology, and alternative fuels. Students are taught to use computerized technical service manuals and are also trained to participate in the Pennsylvania State Department of Transportation (PENNDOT) safety and emissions inspection program and test. Qualified level 3 students are able to participate in the cooperative education program. This program allows students to gain paid work experience at participating repair facilities while attending school.

Potential Career Pathways
(w/ 2020 Median Wage)

Industry Certifications

College Credits

(Offered thru Penn. Coll. Of Tech)

Automotive Service Technicians-\$42,010
Automotive Engineers-\$88,430
Automotive Engineering Technicians-\$56,980
Auto Parts Salesperson-\$31,710
...and many more!

I-CAR
PA Emissions
Cat 1-3 Inspector
EPA 609-A/C
OSHA 10 Certification

AMT 112-Brake Systems
AMT 113-Steering & Suspension

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

DIESEL TECHNOLOGY

Students in the **Diesel Technology** course will receive training in all areas of diesel engine construction, operation, troubleshooting and repair. Students also received instruction in maintenance, servicing, and repair of over-the-road trucks, trailers and transportation equipment. The first year of instruction will focus on diesel powered engines that are primarily related to transportation equipment,

but can also be applied to diesel powered construction equipment, high lifts, farm machinery and other diesel-powered equipment. Electrical systems, turbo chargers, engine speed governors and lubrication systems are a few examples of the engine subsystems that are covered. Students will be assisted in developing a keen attention to detail, which is necessary for success in this trade. The second and third year students study the other components and systems of the truck such as transmissions, rear axles, clutches, drive lines, batteries, starters, alternators, steering, suspension, alignment and air conditioning, just to name a few. Instruction will be provided in oxyacetylene, AC/DC and MIG welding operations. Students who qualify will also be eligible to take the Pennsylvania State Department of Transportation (PENNDOT) safety and emissions inspection program and test for mechanics. They will also be eligible to gain the EPA, type 609 air conditioning certification.

Potential Career Pathways
(w/ 2020 Median Wage)

Transportation Vehicle, Equipment, Sys. Inspector-\$75,820
Bus/Truck Mechanic & Diesel Engine Spec.-\$48,330
Automotive Service Technicians-\$42,010
...and many more!

Industry Certifications

Cat 1-7 Safety Inspector
PA Emissions
EPA 609-A/C
SP/2 Safety (various)

College Credits

(Offered thru Penn. Coll. Of Tech)

DSM 119-Fuel Systems
DSM 141-Heavy Duty Brake Systems

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation

LOGISTICS AND WAREHOUSE MANAGEMENT

Logistics & Warehouse Management students will receive training in the technical and "hands on" aspects of operating a warehouse. Instruction will center on "inventory control", which is a plan for supply needs, control of goods received, efficient accessible storage, and proper distribution of materials. Effective record keeping is also a learned skill. Additional activities will include: materials organization, inspection of goods and accounting for warehouse merchandise, receiving and shipping practices, and the use of power equipment such as forklifts, electric pallet jacks, rollers, and conveyor belts for loading, unloading, or placement of packaged merchandise in warehouse or storage areas. Students will receive actual training in "live" work situations. His/her experience will be comprised of working in a warehouse area that stores in excess of \$100,000 of stock merchandise a year and will become familiar with handling merchandise that ranges in weight from one ounce to three tons. The program also offers the use of data base (computer) entry system for stored materials

Potential Career Pathways
(w/ 2020 Median Wage)

Material Handlers-\$30,290
Forklift Operators-\$36,800
Stock Clerks and Order Fillers-\$27,910*
Shipping, Receiving, Inventory Clerk-\$36,650
Transportation, Storage and Distrib. Mgr-\$103,260
Supply Chain Manager-\$94,560
Logistics Analyst-\$74,750
...and many more!

Industry Certifications

Certified Logistics Associate
NSC Forklift Operator
OSHA 10-General Industry

College Credits

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List
2020 PA Dept. of Labor High Priority Occupation
*ONET Online Bright Outlook Occupation-2020

MANUFACTURING

AUTOMATION, ROBOTICS & ELECTRONICS

Automation, Robotics & Electronics (also commonly called "Electromechanical Technology" or "Mechatronics") is a three-year program that prepares students for employment and for continued education. Students will learn to design, install, troubleshoot, and repair today's modern automation, robotic, and industrial equipment. Instructional topics include: industrial motor controls, robotics and electronics, programmable logic controls, mechanical power transmission systems, fluid power systems/hydraulics/pneumatics, blueprints and schematics, electricity and electrical systems, and A/C and D/C Circuitry.

Potential Career Pathways
(w/ 2020 Median Wage)

Industrial Machinery Mechanics-\$52,510
Electrical and Electronic Engineering Tech.-\$65,260
Robotics Technician-\$58,350

College Credits

(Visit our website to view all college articulation partners)

Industrial Engineering Tech.-\$56,550
 Electromechanical Technician-\$46,960
 ...and many more!

ADVANCED MANUFACTURING TECHNOLOGY

The **Advanced Manufacturing Technology** program prepares students for a challenging and rewarding career and provides entry level training for the manufacturing industry. Students will begin with bench work, blueprint reading, and layout. They will then progress to learning precision measuring tools and techniques to ten thousandths of an inch (.0001"). Students will also learn machining techniques on manual vertical milling machines and manual lathes before progressing on to CNC (Computer Numerical Control) machines. An emphasis on the programming and set up are also included in the CNC training along with instruction on MasterCam and SolidWorks computer software. The course is designed to prepare students for a career as a machinist, but is an excellent choice for a student with the desire to become an engineer.

Potential Career Pathways (w/ 2020 Median Wage)

CNC Machine Tool Programmers-\$58,550*
 Machinists-\$46,340
 CNC Machine Tool Operators-\$42,260
 ...and many more!

Industry Certifications

NIMS Measurement, Materials, Safety
 NIMS Job Planning
 NIMS Turning Between Centers
 NIMS Turning-Chucking
 NIMS CNC Turning: Prog. Set
 Up/Operations
 NIMS Manual Milling
 NIMS Drill Press Skills
 NIMS CNC Turning Operator
 NIMS CNC Milling Operator
 NIMS Grinding Skills
 NIMS CNC Milling: Prog. Set
 OSHA 10-General Industry

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation

*ONET Online Bright Outlook Occupation-2020

College Credits (Offered thru HACC)

MDES 207-Mach Shop Theory
 MDES 101-Engineering Drawing
 IA 205-Numerical Control CNC

(Visit our website to view all college articulation partners)

WELDING TECHNOLOGY

Welding offers training in oxyacetylene and AC/DC arc welding, semiautomatic MIG, plasma cutting, and TIG welding systems. Starting with planning and layout work, the student progresses to setting up and operating welding, brazing, and cutting equipment, oxyacetylene welding light gauge metals in all positions, and shielded metal arc welding in all positions. Emphasis is placed on blueprint reading to identify properties of metal, metal types, types and use of electrodes and welding rods, electrical principles, and welding symbols. The use of manuals and specifications charts and the understanding of welding standards established by the American Welding Society are stressed. Training will be offered in the planning, layout, forming, joining and fabrication of various shapes in light and heavy gauge metals and pipe. Students learn to use specialized hand tools and to operate shears, forming and shaping machines, drill presses, and metal cutting saws.

Potential Career Pathways (w/ 2020 Median Wage)

Welders, Cutters, Solderers, & Brazers-\$44,480
 Structural Metal Fabricators & Fitters-\$40,390
 ...and many more!

Industry Certifications

AWS Shielded Metal Arc Welding (SMAW)-
 3G
 AWS Shielded Metal Arc Welding (SMAW)-
 4G
 AWS Gas Metal Arc Welding (GMAW)-3G
 AWS Gas Tungsten Arc Welding (GTAW)-3G
 AWS Fluxcore Arc Welding D1.1 A100
 OSHA Certification

College Credits (Offered thru HACC)

WELD 102-Oxy Fuel W & C
 WELD 103-Shielded Metal Arc I
 WELD 120-Gas Metal Arc I

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation