

Career Technology Education & Tech Prep Programs





Through an academic combination of practical career and technology courses and general education requirements, students enhance their critical thinking and problem-

solving skills, as well as flexibility, versatility and marketability.

Experienced faculties, who are certified and also recognized in their fields, provide a variety of hands-on learning experiences. These career-minded programs prepare students for employment and/or continued education through a technical, associate or baccalaureate institution. Career and Technology Programs offer specialty options to enable students to concentrate their studies on specific career and/or educational goals. Programs are designed for students that provide concentrated skill development and the opportunity to test, advance or credential in an area of interest. Students opting to enter the workforce have a documented set of skills to enhance employability.

All the Career and Technology Programs have been developed through collaboration with business and industry partners, professional organizations, postsecondary partners, as well as the community, parents and students. Programs identified as Tech Prep Programs are Career and Technology Programs that begin for students in a secondary setting and continue in the same sequence in a postsecondary setting. Both the secondary and postsecondary courses have been developed collaboratively with our partners. Direct transfer agreements, articulation agreements, offer students seamless transfer, and in some areas, the opportunity to begin working on advanced degrees while in high school. These articulations with related community colleges and four-year institutions give high school students a jump start on academic credits in an identified postsecondary setting.

TECH PREP

The seamless High School to College Connection High school and college instructors plan an academic and technical skills program with a sequence of courses that continue from high school directly into college. The student acquires the academic and technical rigor for success in high school, college and career.

ACCOUNTING (TECH PREP)

This program provides students with the training needed for careers in the field of accounting. Students completing the program are competent to record and maintain financial data in journals and ledgers from date of original transaction through a full accounting schedule terminating with closing entries and statement preparation. This instructional program prepares students to provide technical administrative support to professional accountants and other personnel. Our program, along with a bridge course in accounting, developed by Chesapeake College and the Upper Eastern Shore Consortium, provides a seamless transition into an AA program with Chesapeake College or success in many four-year institutions.

AGRICULTURE (TECH PREP)

Students in the Agriculture Program have a choice of four program options: General Agriculture, Plant and Soil Sciences and National Resources and Veterinary Science. All students in the Agriculture Program are required to take a related course, Introduction to Agriculture Science. A strong recommendation for all options is for students to complete the Leadership course. All four agriculture options have been completed with the assistance of our post secondary partners, including Chesapeake College, the University of Maryland, the Maryland State Department of Agriculture and Queen

Anne's County
Agriculture Advising.
Our post secondary
partners offer
continued education
and degree options
in a variety of areas
of agriculture.



OPTION 1 – GENERAL AGRICULTURE

This program emphasizes the business aspects of all agricultural enterprises with a focus on the aquaculture enterprise. Basic theory, use and implications of biotechnology in agricultural sciences are examined in relation to modern agricultural careers and occupations. This program provides students with an introductory experience of how biotechnology systems are manipulated to achieve a desired end product. Students examine how biotechnology has and will continue to revolutionize the fields of agriculture. This program is attractive to students who are interested in continuing in a rewarding career in the bioscience laboratory as well as those entering into the business aspects of any agricultural enterprise.



OPTION 2 – PLANT AND SOIL SCIENCE

This program prepares students with the knowledge and skills in plant and soil science. Along with practical skills, students become familiar with landscaping, landscape design, turf management, sports turf management, plant propagation, greenhouse management, design of flowering plants, and landscape management. The program is designed to teach students plant science in relation to growth: harvesting, reproduction, technology and equipment required to grow effectively and efficiently grow crops. Soil science emphasizes soil characteristics, management, taxonomy and environmental land planning. This program provides students with the basics towards becoming a Nutrient Management Planner, Floral Designer and Turf or Landscape Manager. This program offers high school students excellent preparation for continuing education through University of Maryland Institute of Applied Agriculture and other agriculture program options.

OPTION 3 – VETERINARY SCIENCE

The Veterinary Science program provides students with the introductory theoretical and technical skills essential for success in a wide range of career options in animal health and management. This curriculum provides students a head start on postsecondary programs in Veterinary Sciences as well as providing assistance in veterinary career opportunities.



OPTION 4 – NATURAL RESOURCES

This program emphasizes the business aspects of all agricultural enterprises with a focus on natural resource management. Policies and conservation management practices related to water, soil, air, forests, fish, wildlife, and land use are some of the topics covered. Students have the opportunity to explore the Geographical Information Systems technology and how it is used to manage natural resources. This program is ideal for students interested in career options requiring knowledge of the science of natural resources management.

ARCHITECTURE/ DRAFTING (TECH PREP)

This program prepares students for careers in the fields of architecture, and also equips students with employable skills for the design and construction professions. Emphasis is on the development and application of basic principles in the computer-based environment. All courses develop an appreciation for design parameters in mechanical applications and include substantial practical exercises using AutoCAD software on personal computers. Students obtain skills in computer aided drawing (CAD2003) while preparing for success in postsecondary options in the area of computer-aided design and architecture. The program emphasized building materials as they pertain to the detailing of residential and commercial buildings. Students are exposed to presentation techniques used in professional rendering. Students can expect to find entry-level employment in manufacturing, construction design and related fields.

This program offers articulation credit with Chesapeake College in the AA Architectural Program and includes competencies from the National Standards for CAD.

ASE AUTOMOTIVE (TECH PREP)

This program prepares students for employment or continuing education in the automotive repair industry. Competency in brakes, engine performance, steering and suspension, electronics and repair will be developed through the required credits. Students who choose



this program may obtain Automotive Service Excellence (ASE) industry certification in the areas above while in high school and choose to add additional area certifications through the Community College of Baltimore County.

Students benefit from National Automotive Technicians Educational Foundation (NATEF) approved program by documentation of highly specialized technical skills.

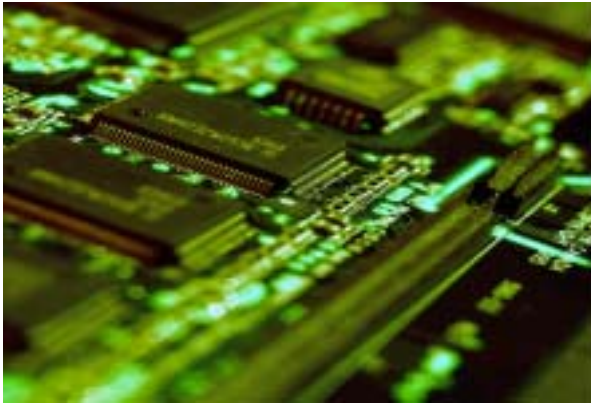
CONSTRUCTION

This program features a structural program through the National Construction, Education and Research, (NCCER). Designing and on construction projects are part of this program. The program also includes an introduction to the boat building focusing on materials and methods of construction, finishes, hardware and maintenance. Students completing this program have the opportunity for gainful employment in the focused areas as well as success in a postsecondary program such as the Construction Management Technology Program at Delaware Technical or Construction Technology Programs offered at the Community College of Baltimore County or Engineering Technology offered at Chesapeake College. Each student completing this program has personal documentation of technical skills validated by National Accreditation.



COMPUTER INFORMATION

Students in the Computer Information program study VB.net, Java, information systems principles, C++ programming language, database applications and other general business topics. Students study the information technology industry. Graduates may find employment at the entry level in business, government and education in support personnel and as technology assistants. Graduates should consider continuing in a postsecondary degree option in the area of Information Technology and Computer Science to widen their career options.



COSMETOLOGY

The cosmetology program offers students an opportunity to develop scientific and artistic fundamentals of beauty professions. Throughout the program, safety practices and procedures are stressed. The program provides students the opportunity complete credits in

Cosmetology I, II and III. Students must complete the 1500

hours required in order to be eligible for

licensure. This program

culminates with a

Maryland State Board

Examination and

license qualifying the

graduate to be

employed as a licensed

cosmetologist.





ENGINEERING (TECH PREP)

Students in this instructional program receive instruction on the application of basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects.

This program includes instruction in various engineering support functions for research, productions, operations and applications to specific engineering specialties. In addition to CAD software

instruction and drawing, students obtain instruction in technical skill operations for bench work, layout tools and basic measurement. Students explore the uses and operations of basic robots, pneumatics, energy systems, electrical and manufacturing processes used in the engineering field. This program provides students with the necessary courses to continue in many postsecondary engineering programs. Courses in this program articulate to Chesapeake College in the Engineering Technology degree options.

EMT/ FIRE AND RESCUE (TECH PREP)

The classroom and practical sessions of this program are conducted at the Upper Eastern Shore Regional Training Center of the Maryland Fire and Rescue Institute (MFR). All of the courses are taught by MFR certified instructors. This program, consisting of four courses, can be completed in one year during 2nd and 3rd periods. Students must be 16 years of age, a junior or a senior, and a member of a Queen Anne's County Volunteer Fire Company. Operating as members of the Fire and Rescue service requires good health and physical condition. Individuals with physical and medical conditions, which may limit their full and active participation, may not be eligible for this program. This program offers employment opportunities in emergency medical service and fire safety. This program articulates 12 college credits in the University of Maryland Fire Services degree programs.

GRAPHIC AND WEB DESIGN (TECH PREP)

Students develop computer-generated images for graphic and publication design applications, plan publications from start to finish, work with software programs related to word processing, electronic layout and design, and image editing. Students have the opportunity to plan and develop documents such as newsletters, marketing materials, training guides and more.

This program allows students the flexibility to learn web design

using Macromedia software. Students learn the skills to develop and author web pages. This program provides students with various career opportunities as well as a great introduction to the many post secondary degree options offered in Information Technology and Multi-Media Design at Chesapeake College and other local community colleges.



HEALTH CARE TECHNOLOGY (TECH PREP)

This program is designed to include theory and practical application that enables graduates to assist with competent patient care. Students obtain First Aid Certification and Cardio-Pulmonary Resuscitation as part of this program. Students may qualify for Nursing Assistant Certification with the Maryland Board of Nursing by completing all six health care credits in the program. Students also qualify to take the State Examination for certification as Geriatric Nursing Assistant.



Geriatric Nursing Assistants and Certified Nursing Assistants may be employed in a variety of health care settings. Students are encouraged to continue with other health care related occupation pathways offered at Chesapeake College and other post secondary programs.

INFORMATION TECHNOLOGY (TECH PREP)

This program is designed to prepare students with the knowledge and skills necessary to be a successful computer service technician. The curriculum is based on the National Skills Standards for Information Technology, A+ Certification and Net+ Certification. A + Certification and Net+ Certification are a nationally recognized level of competence commonly accepted and valued by the industry. Students who complete this program have opportunities for employment in the field and have the opportunity to continue in additional technology certifications as well as other network management and computer related degree postsecondary programs and certifications. Students in this program are offered a seamless transition into degreed programs at Chesapeake College in networking and network management.

MARKETING/ MANAGEMENT

This instructional program prepares individuals to perform marketing and management functions that can be applied broadly in a domestic and global marketing environment. Principles, practices, and procedures are taught with several identifications to a specific enterprise, product or service. The courses address the functions of marketing and management including computer technology skills. Emphasis is placed on appropriate interpersonal, teamwork and leadership skills to enhance acceptable values and behaviors necessary for the workplace. Additional competencies are offered to students to allow for specialization in marketing and management. Areas of specialization may include advertising/display, general merchandizing, finance and credit, hotel/ motel, restaurant marketing and other areas. This program provides opportunities through a partnership with the QAC



Chamber of Commerce for students to obtain classroom skills in management and apply them in a management position through work-based learning sites.

MANUFACTURING (DUAL ENROLLMENT LOCATED AT QACHS)



This program offers dual enrollment credit in Drafting, Machine Shop, and Electronics related to new technologies utilized in the manufacturing process. Technical skills are identified by area manufacturers and the curriculum is built around these documented skills. Chesapeake College representatives, along with manufacturing business executives

visit the high schools to introduce students to the job opportunities in manufacturing careers. Manufacturers provide work-based learning experiences for students enrolled in the program through the Directed-Work Office. The classes meet during 1st and 2nd period.

MASONRY

This National Center for Construction Education and Resource Certified program provides students with the technical skills essential in the field of modern masonry construction. This sequence of specialized courses provide students with the necessary competencies to enter the workforce or continue in Construction Technology Associate of Arts programs such as offered at the Community College of Baltimore or Delaware Technical College. Students who successfully complete this program have the opportunity to apprentice in the International Masonry Institute Program. This program is for students wishing to specialize in the masonry construction technology area that promises opportunity for individuals who are high skilled and ambitious.

MEDIA COMMUNICATIONS

This program prepares students for careers in the field of communications for television camera operator, broadcast technician, video recording engineer or television production operator. During this program, students are prepared to assume the responsibility for overall production of television studio activities including lighting, scripts, filming, directing, electronic news gathering and film production. This program offers students a seamless transition into programs offered at Anne Arundel Community College in Communications Technologies or other post secondary institutions.



OFFICE TECHNOLOGY (TECH PREP)

This program is designed to prepare students for various office careers in the business world. The program seeks to provide students not only with the technical skills but also with the skills necessary to perform successfully in the many situations

found in the modern office environment. This program emphasizes mastery of skills in various software application programs. English, proofreading, editing and transcription skills in relation to sophisticated equipment, computer software, and



office procedures are used. Completion of this program offers a wide range of employment opportunities in the automated office. Students cover medical word processing as part of this program. Students may choose to continue in the Medical Office Assistant and Management Program with Medix in Towson, Maryland. Articulation with Medix School offers students the opportunity to complete a postsecondary program prior to office employment. Students opting to take additional elective courses in Health Care Technology increase their opportunity to succeed in office settings of health related fields. Microsoft Office User Specialist Certifications are offered through this program.



WELDING (TECH PREP)

This National Center for Construction Education and Resource

Certified program is highly specialized for students interested in various welding career opportunities. This program is based on the American Welding Society Standards. Students completing this program take the American Welding Society (AWS) Certification test. Completing this program, along with the National Certification from AWS, allows students to broaden their career opportunities and marketability. Students in this pathway may also choose to continue in post secondary settings in the fields of engineering and construction technology offered through technical schools and Chesapeake College.

NEED MORE INFORMATION?

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Opportunities are available for Dual Enrollment at Chesapeake College, Anne Arundel Community College and Washington College. Work Based learning opportunities are available in each program pathway at area companies and businesses. Students completing all requirements for Work Based Learning may earn credit. Some Work Based Learning opportunities offer pay and credit.

Tech Prep is....

- A pathway to two-year certified programs, associate degrees, registered apprenticeships, and the pursuit of a baccalaureate degree at a four-year college or university.
- An opportunity for students to focus on a career path for work and college, and adapt their knowledge to a changing workplace as well as for continuous lifelong learning.
- A seamless transition from high school to college in identified career areas.
- Sequential aligned curriculum that blends academic and technical competencies in grades 11 through 12 and college.
- A program that enables high school students to earn college credit while taking selected high school courses.



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