

WORK-BASED LEARNING

Work-Based Learning is available to CCST students. At actual work sites, students have the opportunity to integrate occupational and academic learning and to obtain skills necessary for a successful transition into the workforce. Students benefit from participating in internships or practicums, clinical experiences, community-based volunteering, and job shadowing.

Trade and Industrial (T&I) students who have demonstrated a high proficiency in their technical competencies, may participate in on-the-job-training. The T&I instructor works closely with the employer to ensure course competencies are attained.

Internships or practicums allow students to apply their new skills in structured work environments while monitored by a CCST teacher and the business employer. Students participate in these experiences towards the end of their classroom training.

Clinical experiences, aligned with the curriculum, are required of health occupations students. Students obtain hands-on experience in medical facilities with patients and procedures under their instructors' supervision.

Community-based volunteering involves unpaid work in community businesses. Students learn important employability and work skills related to their career fields.

Job Shadowing allows students to follow workers on the job for a set period of time. Students observe academic and occupational skills being put into practice.

STUDENT ORGANIZATIONS

CCST students are encouraged to participate in clubs/organizations that provide opportunities for them to develop leadership skills that are essential to becoming world-class workers and responsible citizens:

- SkillsUSA
- Health Occupations Student of America (HOSA)
- National Technical Honor Society (NTHS)

TRANSPORATION:

Provided by CPS buses from student's home school.

COURSE LENGTH:

2 blocks every day, full year

Industry certifications for programs at CCST may be obtained pending successful completion of programs and passing related exams.

Students interested in the dual enrollment option must meet TCC's acceptance requirements.

For more information, please contact your high school career and technical education counselor.

Chesapeake Center For Science & Technology

Dr. Shonda P. Pittman-Windham, *Program Administrator*

Mr. Richard Babb, *Supervisor*

Mrs. Laura Edmonds-Young, *Guidance Director*

The mission of the Chesapeake Center for Science and Technology is to prepare students for life-long learning and successful entry into a global workforce or post-secondary institutions by providing quality instruction and academic-based career and technical skills training in a safe and self-directed environment in partnership with its diverse students, parents, and business community.

The Chesapeake Public School System is an equal educational opportunity school system.

The School Board of the City of Chesapeake also adheres to the principles of equal opportunity in employment and, therefore, prohibits discrimination in terms and conditions of employment on the basis of race, sex, national origin, color, religion, age, or disability.



CHESAPEAKE
Center for Science & Technology

**PREPARING STUDENTS FOR
COLLEGE AND CAREERS!**

1617 Cedar Road
Chesapeake, VA 23322
757-547-0134

<http://www.cpschools.com/Schools/CCST>

Download our mobile app



For program competencies, please visit
Virginia's CTE Resource Center-Career & Technical Education's website:
<http://cteresource.org/verso>



CHESAPEAKE
Center for Science & Technology

2017-2018
Course Descriptions

1617 Cedar Road
Chesapeake, Virginia 23322
Telephone (757) 547-0134

2017-2018 Course Descriptions

AUTO BODY I & II, COLLISION AND REFINISHING (73351 & 73552) – GRADE 12

Auto Body I & II, Collision and Refinishing provides instruction in non-structural analysis, car damage repair, and welding. Students will work with a variety of materials, using metal finishing and body filling techniques to prepare surfaces and repair panels. In addition, students practice shop safety and gain career skills. *Dual Enrollment Required. I-CAR Pro Level Assessment*

AUTOMOTIVE TECHNOLOGY I, POWERTRAIN SPECIALIST (71911) – GRADE 11, 12

Automotive Technology I, Powertrain Specialist provides instruction in the theory, repair and light maintenance skills relating to automotive engine rebuilding, electrical and electronic systems, automatic and manual drivetrain, and engine performance. This program is certified by the National Institute for Automotive Service Excellence (ASE). *ASE Student Certification.*

AUTOMOTIVE TECHNOLOGY II, UNDERCAR SPECIALIST (71912) – GRADE 12

Automotive Technology II, Undercar Specialist provides instruction in the theory, repair and light maintenance skills relating to automotive electrical systems, suspensions, steering, heating and air conditioning systems and brakes. This program is certified by the National Institute for Automotive Service Excellence (ASE). *ASE Student Certification. Prerequisite:* Automotive Technology I.

COMPUTER SYSTEMS TECHNOLOGY I (72011) – GRADE 11, 12

Computer Systems Technology I assists students in preparing for the A+ Essentials test, the first test required to become A+ Certified. Successful students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices, PCs and software for end users, understand the basics of networking and security/forensics, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students must also understand the basics of providing customer support and virtualization, desktop imaging, and deployment. *CompTIA A+ Essentials Examination. Dual Enrollment option.*

COMPUTER SYSTEMS TECHNOLOGY II (72012) – GRADE 12

Computer Systems Technology II assists students in preparing for the A+ Practical Applications exam, the second test required to become A+ Certified. Students build upon the skills learned in Computer Systems Technology I. Successful students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices, PCs and software for end users, understand the basics of networking and security/forensics, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students must also understand the basics of providing customer support and virtualization, desktop imaging, and deployment. *A+ Certification. Dual Enrollment option. Prerequisite:* Computer Systems Technology I.

COSMETOLOGY I (72411) – GRADE 11, 12

Cosmetology I is the study of hair, skin, and nails and their related care. Students study and prepare in a clinical lab setting, using mannequins, and live models for manipulative skill practice. The program emphasizes safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and presentation of a professional image.

COSMETOLOGY II (72412) – GRADE 12

Cosmetology II is a course in which students develop skills and technical knowledge relating to advanced hair coloring, hair pressing, facials, cosmetic make-up, wig styling, selection of commercial products, and salon management. Upon successful completion of this class, students are eligible to take the Cosmetology State Board Examination to become a licensed cosmetologist. *Cosmetology State Licensure. Prerequisite:* Cosmetology I.

ELECTRICITY I & II – GRADE 11, 12

Electricity I and II provides instruction in the installation, operation, maintenance, and repair of residential, commercial, and industrial electrical systems. Students will also study electrical theory and mathematical problems related to electricity, navigate the National Electrical Code Book, select and install conductors, examine lighting, communication, and power systems, and work with conduit and raceways, panel boards, switchboards, grounding systems, and generators. *Dual Enrollment Required.*

EMERGENCY MEDICAL TECHNICIAN (72611 & 72612) – GRADE 11, 12

Emergency Medical Technician (EMT) prepares students to take the Emergency Medical Technician Basic Licensure Exam administered by the National Registry of Emergency Medical Technicians. This program includes instruction in dealing with bleeding, fractures, airway obstruction, cardiac arrest, and emergency childbirth. The curriculum includes a practical applications component, provided through emergency room and ambulance “ride along” experiences; the minimal age of 16 is required to enroll in this course. *EMT VA State Licensure.*

HEALTH CARE TECHNOLOGY: NURSE AIDE (72711 & 72712) – GRADE 11, 12

Nurse Aide prepares students for an entry-level position as a health care professional in a hospital or nursing home. In addition, this program provides basic medical/nursing experience for students in a medical facility under their instructor’s supervision.

Course topics include anatomy and physiology, medical terminology, first aid and CPR, and basic nursing skills. Upon successful completion of the course, students are eligible to take the national exam to become a licensed certified nurse aide. *National Nurse Aide Assessment.*

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION I (72311) – GRADE 11, 12

Heating, Ventilation, Air Conditioning, and Refrigeration I (HVACR I), in the first course of the instructional program, students are taught to professionally install, repair, and maintain the operating conditions of heating, air conditioning, and refrigeration systems. Students work with piping and tubing, study the principles of heat and electricity, install duct systems, and comply with EPA regulations. Completion of this two-course sequence may prepare students for a number of certification exams, helpful for employment in a variety of HVACR occupations. *EPA - Section 608 Technician Certification. Dual Enrollment Option.*

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION II (72312) – GRADE 12

Heating, Ventilation, Air Conditioning, and Refrigeration II, this instructional program teaches students to professionally install, repair, and maintain the operating conditions of heating and cooling systems. Students also explore emerging technologies, EPA regulations and conservation techniques and R-401A systems. Completion of the this sequence may prepare students for a number of certification exams, helpful for employment in a variety of HVACR occupations. *Universal R – 410A Certification. Prerequisite:* HVACR I. *Dual Enrollment Option.*

NAIL TECHNICIAN I & II (73011 & 73012) – GRADE 10, 11, 12

Nail Technician is a course designed to assist students in developing skills and technical knowledge relating to manicuring, pedicuring, and basic nail care. Students study career opportunities, professional ethics, nail structure, anatomy of the hands and feet, sterilization/sanitation, product chemistry, and safety procedures. Upon successful completion of this class, students will be eligible to take the State Board Examination to become a licensed nail technician. *Nail Technician VA State Licensure.*

PRACTICAL NURSING I & II (72521 & 72522) GRADE 12

Practical Nursing Program is an 18-month program of study designed for high school seniors and a limited number of adults. Upon successful completion of this program, students are eligible to take the licensure examination given by the National Council of the State Board of Nursing (NCLEX-PN). Prerequisite prior to enrolling: Algebra 1, Biology, Chemistry, 2.5 grade point average.

Practical Nursing I & II, is a weighted course, approved by the Virginia Board of Nursing. Emphasis is given to human anatomy and physiology, growth and development, nutrition, drug therapy, fundamentals of nursing, the nursing process, and the introduction to medical-surgical nursing. Clinical rotations at a local hospital provide students with the opportunity to apply learning to the care of clients with medical-surgical disorders.

PRACTICAL NURSING III (POST GRADUATE)

Practical Nursing III is a full-time course consisting of approximately 1,000 instructional hours. These hours are divided between classroom theory and clinical practice in area health care facilities. Emphasis is on application of the nursing process to the care of clients from birth to old age with medical, surgical, obstetrical, pediatric, geriatric, and psychiatric disorders. *Licensed Practical Nursing.*

PUBLIC SAFETY/ FIREFIGHTING (73111 & 73112) – GRADE 11, 12

Public Safety/Firefighting prepares students learn how to fight fires and control the outbreak of fire. Instruction includes fire department organization; use of various kinds of equipment, methods of entry and rescue; salvage practices and equipment, fire and arson inspection and investigation techniques. Minimal age 16 required to enroll in this course. *Workplace Readiness.*

TELEVISION AND MEDIA PRODUCTIONS I & II (72911 & 72912) – GRADE 11, 12

Television and Media Production I, II is a one year, three-credit course in which students learn to operate electronic field production video cameras and studio equipment as it is used in the production of television programs. Students work with television graphics, lighting, and studio and location sets and settings. In the 2nd semester of the course, the students receive extensive hands-on experience while working as writers, producers, directors, videographers, reporters, editors, audio and video operators, and production assistants. They will assist WCPS and WCTV-48 in the production of television programs. *NOCTI – Television Production.*

WELDING I (72211) – GRADE 11, 12

Welding I prepares students to develop knowledge and skills in occupational awareness, drawings, welding symbols, shielded metal arc welding, gas metal arc welding, flux cored arc welding, gas tungsten arc welding, oxy-fuel welding and cutting, plasma arc cutting, carbon arc cutting practices, and visual inspection principles and practices. *Dual Enrollment Option.*

WELDING II (72212) – GRADE 12

Welding II prepares students to learn and develop advanced skills in the welding industry including occupational awareness, job hunting skills, following written and verbal directions, interpreting and applying welding symbols and basic drawings. Students also demonstrate proficiency in the following welding and cutting processes: shielded metal arc welding, gas metal arc welding, flux cored arc welding, gas tungsten arc welding, manual and automatic oxy-fuel gas cutting, carbon arc cutting, plasma arc cutting, and visual examination principles and practices. *Skills USA Welding Proficiency Assessment. Prerequisite:* Welding I. *Dual Enrollment Option.*