

TAZEWELL COUNTY CAREER AND TECHNICAL CENTER

Tazewell County Career and Technical Center offers a variety of courses to meet the needs of the students in Tazewell and Bland Counties. Programs are one, two, and three year programs. The courses are three-period block classes and the students earn 3 credits per course. Upon satisfactory completion of the program, students may obtain industry level licensure or certification. Programs are designed in the following clusters.

Construction Cluster

Carpentry I (8601)

Grade Level: 10, 11, or 12

Prerequisite: None

Carpentry II (8602)

Grade Level: 11 or 12

Prerequisite: Carpentry I

Carpentry III (8603)

Grade Level: 12

Prerequisite: Carpentry II

Carpentry courses prepare students for successful transition into postsecondary education for careers in carpentry and related fields, such as construction management, architecture, and others. Students are taught the safe use of hand and power tools common to the industry to complement their Construction Industry OSHA 10 safety credential earned in Carpentry I. Students will become proficient in assembling and installing various types of residential construction components according to industry standards, including forming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, and exterior doors and windows. Students are provided with advanced instruction in all areas as they prepare for industry certification examinations.

Masonry I (8512)

Grade Level: 10, 11, or 12

Prerequisite: None

Masonry II (8513)

Grade Level: 11 or 12

Prerequisite: Masonry I

Masonry III (8514)

Grade Level: 12

Prerequisite: Masonry II

Students focus on problem-solving and employability skills while performing hands-on, entry-level brick and block masonry tasks. Students also learn to use hand tools, measuring tools, power tools, and lifting equipment that masons use on the job and have the opportunity to earn their OSHA 10 safety credential during Masonry I. Students will then complete more advanced projects laying masonry units (brick and block), differentiating and selecting mortar, applying mathematical concepts, and interpreting blueprints used in masonry. Students are provided with advanced instruction in all areas as they prepare for industry certification examinations.

Building Management I (8591)

Grade Level: 10, 11 or 12

Prerequisite: None

Building Management II (8592)

Grade Level: 11 or 12

Prerequisite: Building Management I

Building Management III (8593)

Grade Level: 12

Prerequisite: Building Management II

Students obtain the knowledge and skills to perform the upkeep of commercial and public buildings and grounds through hands-on training in cleaning operations, building repairs, electrical, plumbing, and grounds maintenance. Students will also have the opportunity to earn their OSHA 10 safety credential during Building Management I. Students are provided with advanced instruction in all areas as they prepare for industry certification examinations.

Health Sciences Cluster

Health Science Rotation:

Introduction to Health and Medical Services (8302)

Grade Level: 11 or 12

Prerequisite: None

Medical Terminology (8383)

Grade Level: 11 or 12

Prerequisite: None

These are introductory courses that provide students with foundational knowledge to pursue a career in Health or Medical professions. Each of the above courses are semester courses. In order to take either course, students must be enrolled in both courses.

Certified Nurse Aide

Grade Level: 11 or 12

Prerequisite: None, but Health

Science Rotation is strongly recommended

Students learn nursing care of patients of all ages. The focus is on daily hygiene and medical need of patients. The course includes CPR training and certification. Upon successful completion of the program, students will sit for the State Board of Nursing's Nurse Aide License.

Emergency Medical Technician (8333)

Grade Level: 11 of 12

Prerequisite: None, but Health

Science Rotation is strongly recommended

Students explore and apply the fundamentals of EMS, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Students who complete this course successfully will have the opportunity to take the national licensure exam.

Manufacturing Cluster

Welding I (8672)

Grade Level: 10, 11, or 12

Prerequisite: None

Welding II (8673)

Grade Level: 11 or 12

Prerequisite: Welding I

Welding III (8674)

Grade Level: 12

Prerequisite: Welding II

These courses teach students to use gases and/or welding processes and to braze and solder metal parts according to diagrams, blueprints, or written specifications. Students will then fine-tune their craft and to perform welds in various positions, using multiple welding processes. Welding is required by a wide variety of industries anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Students are provided with advanced instruction in all systems as they prepare for industry certification examinations.

Mechatronics I (8554)

Grade Level: 10, 11, or 12

Prerequisite: None

Mechatronics II (8555)

Grade Level: 11 or 12

Prerequisite: Mechatronics I

Mechatronics III (8556)

Grade Level: 12

Prerequisite: Mechatronics II

Students will learn about mechatronic systems. These systems are comprised of mechanical, electrical, and software systems, and typically include sensors feeding data to a computer/controller, which determines how to energize a motor/actuator. Mechatronic systems form the foundation of robotics, automation, and advanced manufacturing (such as three-dimensional [3D] printing). Students are provided with advanced instruction in all systems as they prepare for industry certification examinations.

Human Services Cluster

Beauty Salon Assistant (8546)

Grade Level: 10

Prerequisite: None

This course prepares students for work as an assistant in a hair salon. Students study and prepare in a clinical lab setting, learning practical and manipulative skills. The program emphasizes safety and sanitation, shampooing and conditioning, retailing, inventory control, and receptionist work. Competency completions allow students a certificate for entry-level employment. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

Cosmetology I (8527)

Grade Level: 10

Prerequisite: None

Cosmetology II (8528)

Grade Level: 11

Prerequisite: Cosmetology I

Cosmetology III (8529)

Grade Level: 12

Prerequisite: Cosmetology II

Cosmetology 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 emphasized safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and presentation of a professional image. Competency completions prepare the student for the Virginia Board of Cosmetology licensing exam.

Transportation Cluster

Auto Body Technology I (8679)

Grade Level: 10, 11 or 12

Auto Body Technology II (8680)

Grade Level: 11 or 12

Prerequisite: Auto Body Repair I

Auto Body Technology III (8681)

Grade Level: 12

Prerequisite: Auto Body Repair II

In this course, students are taught damage analysis, estimating, customer service, non-structural analysis, damage repair, and welding. Students work with a variety of materials, using metal finishing and body filling techniques to prepare surfaces and repair panels. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations.

Auto Service Technology I (8506)

Grade Level: 10, 11, or 12

Prerequisite: None

Auto Service Technology II (8507)

Grade Level: 11 or 12

Prerequisite: Auto Service Technology I

Auto Service Technology III (8508)

Grade Level: 12

Prerequisite: Auto Service Technology II

In these courses, students build upon their basic knowledge of automotive technology, exploring and completing more advanced tasks in engine repair, cooling systems, transmission and transaxle, manual drive trains and axles, suspension and steering, wheel and tire, brakes, electrical/electronic systems, HVAC, and engine performance. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations.

Diesel Equipment Technology I (8613)

Grade Level: 10, 11, or 12

Prerequisite: None

Diesel Equipment Technology II (8614)

Grade Level: 11 or 12

Prerequisite: Diesel Equip Tech I

Diesel Equipment Technology III (8615)

Grade Level: 12

Prerequisite: Diesel Equip Tech II

Students receive instruction in diagnosis and adjustment of medium- and heavy-duty diesel trucks and equipment and in preventive maintenance and inspection procedures. They apply theory and maintain operation of diesel engines, brakes, suspension and steering systems, and electrical/electronic systems. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations.

Basic Small Engine (8724)

Grade Level: 10, 11, or 12

Prerequisite: None

Small Engine Repair (8725)

Grade Level: 10, 11, or 12

Prerequisite: None

Small Engine Repair II (8726)

Grade Level: 11 or 12

Prerequisite: Small Engine Repair I

Students learn to maintain and repair small internal-combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, motorcycles, and snowmobiles, and other 2 and 4 cycle engines. Second year students will learn specific repair skills for Harley-Davidson power trains. Students are provided with advanced instruction in all systems as they prepare for industry certification examinations.

Law, Public Safety, Corrections, and Security Cluster

Criminal Justice I (8702)

Grade Level: 10 or 11

Criminal Justice II (8703)

Grade Level: 11 or 12

Criminal Justice III (8704)

Grade Level: 12 Prerequisite:

Prerequisite: None

Prerequisite: Criminal Justice I

Criminal Justice II

Students learn theory and practice of law enforcement, corrections, and private security staff. They are introduced to the equipment used in law enforcement and security and provided opportunity to practice skills needed for a career in public safety. Students are provided with advanced instruction in all areas as they prepare for industry certification examinations.

Academic Offerings

In addition to the Career and Technical Education courses outlined above, students may enroll in one of the academic courses listed below. Students who take academic courses in addition to the technical courses will have the opportunity to earn up to 2 credits for the technical course and 1 credit for the academic course for a total of 3 credits per year.

English 9 (1130)

Grade Level: 9

Prerequisites: None

English 9 is an integrated study of literature, composition, and grammar. Students will also present dramatic readings of literary selections and continue to develop proficiency in making planned oral presentations. Students will critique significant literary works from a variety of cultures and eras. Students' writing will encompass narrative, literary, expository, and technical forms, emphasizing the rules of Standard English. They will use word processors, electronic databases, and a standard stylesheet method to cite reference sources. Applied communication skills will be introduced.

English 10 (1140)

Grade Level: 10

Prerequisites: English 9

English 10 increases the students' knowledge of the world through emphasis on world literature. Students will read and critique short stories, novels, drama, and poetry from a variety of eras and cultures, including those studied in world geography. Students will analyze printed consumer information, develop reading analysis skills, and utilize problem-solving strategies. Students will produce well-organized expository papers and workplace writing which conform with the rules of standard English. They will improve their research skills by using available technology. In all facets of study, students will participate in small-group learning activities.

English 12 (1160)

Grade Level: 12

Prerequisites: English 11 or Advanced Placement English 11

This course concentrates on English literature and composition. Poetry, drama, and short fiction from the Anglo-Saxon to the 20th Century Periods will be studied. Advanced grammar study supplements the writing of compositions. Literary analysis will be included in compositions and oral communications. Grammar and mechanics are reviewed, and vocabulary is continually emphasized. Grammar and composition will also be studied with emphasis on revision for accuracy and clarity of technical writing.

Economics and Personal Finance (6120)

Grade Level: 11, 12

Prerequisite: None

Students explore facets of financial decision-making involved in daily life. Skills in money management, record keeping, and banking are enhanced through the study of basic concepts of economics, insurance, credit, and other related topics.