

Venango Technology Center

Course Descriptions

Allied Health Occupations

This program is designed to prepare the students for a career in the health care field caring for patients in hospitals, nursing homes, and home care. Students learn CPR, First Aid, medical terminology, and how the body works. Students work towards earning a special license to become a Certified Nurse's Assistant (CNA).

Auto Body Repair Technology

The student learns the following skills: MIG welding, use of hand tools, collision and plastic repair, refinishing & painting techniques, and damage estimating. The auto body student will analyze damage to uni-body structures, look up manufacturer's paint codes, and mix the correct colors of paint. A state of the art down draft spray booth is available for the development of refinishing skills.

Automotive Technology

New students learn automotive maintenance including the following: brake work, tire changing & repair, wheel balancing, oil changes, lubrications, exhaust systems, and electrical systems, analysis of engine problems, adjustment, repair, and replacement of faulty parts. The students also learn engine tune-up, engine overhaul, steering systems, wheel alignments, fuel injection theory, drive-ability, and repair.

Building Construction Technology

This course begins with an emphasis on the safe use and care of hand tools and power tools. Rough framing, roof framing, exterior finish, interior finish, and stair building are taught and the learning is culminated with the construction of an actual full-scale house. Electrical wiring, plumbing, dry wall application and masonry are also taught. Trade mathematics, estimating, and blueprint reading are major units of the course.

Computer Aided Drafting & Design (CADD)

The CADD curriculum prepares the student for entry-level skills as a mechanical or architectural draftsman. Basic drafting fundamentals on the drafting board, applied mathematics and basic geometry, and computerized drafting (CAD) comprise the Computer Aided Drafting & Design curriculum. The CAD equipment is computer-based with the latest version of AutoCAD, Architectural & Mechanical Desktop, Inventor Series Professional, and Revit Building programs.

Computer Information Systems

The first year is devoted to introducing students to computer concepts and terminology, general business applications with Microsoft Office, computer programming, web site development, and 2D animation. The second year students learn how to analyze common hardware/software/networking processing, problems, and performance issues, integrate common preventive maintenance techniques, and identify cyber law and digital forensics by using computer forensics techniques. Third year students will concentrate on multimedia development, 2D video game development, and 3D animation commonly seen in video games and motion pictures.

Culinary Arts

The culinary arts department is divided into two phases: chef training (including baking) and waiter/waitress training. The chef training emphasizes food service and bakery operation; including banquet service, buffets, fast food preparation, and institutional food service. The waiter/waitress program stresses proper customer service, table setting, reading and describing a menu, and cash register operation.

Dental Assisting

Dental Assistant carry out a wide variety of jobs within a private dental office, clinic or hospital setting. Dental Assistants work alongside the dentist to provide a second pair of hands while giving comfort to the patient. Some of these jobs include greeting patients, preparing procedure trays, mixing required dental materials, evacuation of fluids, and the transfer of instruments & instrument sterilization. They also give oral hygiene instructions along with pre- and post-operative instructions and nutrition counseling.

Venango Technology Center

Course Descriptions

Electronics Technology

Students study electrical and electronic circuits, audio and digital electronics, microprocessors, robotics systems, copper cabling, fiber optics, and computer servicing and troubleshooting. Students operate voltmeters, oscilloscopes, and other specialized equipment. Students will also receive instruction in programmable logic controllers and industrial motor controls. Students will build their own lab trainer, multi-meters, and other electronic projects. A prior course in algebra is helpful, but not required.

Gas & Oil Technician

The Gas and Oil Technician program is designed to introduce the students to the many skills required to obtain employment in the growing gas and oil extraction industry. Students learn to apply technical knowledge and skills to setup, maintain, repair, and operate well drilling equipment; locate, drill, construct, and develop gas, water and oil wells; and test and monitor wells to ensure adequate flow.

Heating, Ventilation & Air Conditioning Technology

This is an instructional program that prepares individuals to apply technical knowledge and skills to install, repair and maintain commercial and domestic heating, air conditioning and refrigeration systems. Instruction includes theory and application of basic principles involved in conditioning of air (cooling and heating); filtering and controlling humidity; operating characteristics of various units and parts; blueprint reading; use of technical reference manuals; the diagnosis of malfunctions; overhaul, repair and adjustment of units and parts such as pumps, compressors, valves, springs and connections; and repair of electric, electronic and pneumatic control systems.

Machine Tool Technology

Blueprint reading, understanding instructions, and mental alertness, with good eye-hand coordination are necessary ingredients for the machine tool technology area. Machine work includes: lathe, milling machine, heat-treating, bench work, drill press, grinder, and band saw. In addition, the student is exposed to a computerized numerically controlled (CNC) milling machine and a computerized turning center. This enables the student to learn current technology as it relates to computer-controlled machinery.

Natural Resources

A combination of subject matter and planned learning experiences dealing with conservation and natural resources such as air, forests, soil, water, fish, plants, and wildlife is a part of this course. Students are able to explore careers in forestry, horticulture, landscaping, recreational land use, environmental protection, and a variety of related careers. The four main areas of the program are: forestry, landscaping, horticulture, and greenhouse operation. Students are also instructed in the use of chain saws, survey equipment, and operation of a landscape tractor and a log loader.

Protective Services

This program provides a great start for students who choose to pursue higher education in their chosen field. Students will also learn skills that enable them to walk-on to several entry-level jobs that are in high demand in our area and across the United States. Students will develop the mental, physical, and moral attributes to be successful in the Protective Services fields, including Law Enforcement, Fire, and Emergency Medical Services. Students will engage in a daily regimen of physical fitness and will be required to keep their uniforms along with appearance up to standard.

Welding Technology

The course deals with blueprint reading, hand tools, brazing, using oxygen/acetylene torches, shielded metal arc (stick) welding, gas metal arc (M.I.G.), gas tungsten arc (T.I.G.) welding, and flux core arc welding (FCAW) in various test positions. The student will cut metals using a variety of cutting processes. Students will practice and have the opportunity to obtain certifications under American Welding Society codes. Safety is stressed throughout the course.