

Program Guide



Venango Technology Center

1 Vo Tech Drive Oil City, PA 16301

(814) 677-3097

www.vtc1.org

Attention Parents:

As the parent or guardian of a high school student, do you know where your child will be going after graduation? Do they want to go to college, get a job, or both?

Venango Technology Center can assist them with their plans.

During second semester of their freshman year, students will have the opportunity to visit VTC and spend a half day in a shop of their choice to see firsthand how we learn by doing.

Here are a few things to consider:

With the rising costs of post-secondary education, students need to make critical career decisions that result in successful careers. By attending the Tech Center, students will develop skills necessary to make sound career decisions and have the opportunity to train on the most modern equipment available.

We have agreements with some colleges, technical schools, and apprenticeship programs that will help students not only be better prepared, but may award them college credits to apply toward their post-secondary education.

The US Department of Labor reported in 2010 that 2 year associate degree holders will make 94% of the annual earnings of a 4 year college graduate except those in high professional jobs (like doctors and lawyers). Our graduates are prepared to pursue an associate degree in order to expand their opportunities for success

It is important that both the academic and technical skills that a student learns in high school will lead them to a successful career path.

Sincerely,
Mario Fontanazza, Director
Sarah Campbell, School Counselor

Venango Technology Center will not discriminate in its educational programs, activities, or employment practices, based on race, national origin, sex, sexual orientation, disability, age, religion, ancestry, union membership, creed, marital status, veteran status, or any other legally protected classification. Announcement of this policy is in accordance with state and federal laws, including Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Venango Technology Center

Venango Technology Center offers students the opportunity to learn hands-on technical skills that will prepare them to:

- Gain entry-level jobs following high school graduation
- Continue their education and training in a post-secondary institution (2-year technical school or associates degree & 4-year colleges)

Program areas include the following:

Allied Health Occupations Auto Body Repair Technology Automotive Technology Building Construction Technology Computer Aided Drafting & Design **Computer Information Systems Culinary Arts Dental Assisting Early Childhood Education Electronics Technology Heavy Equipment Repair Technology** Heating, Ventilation, & Air Conditioning **Machine Tool Technology Natural Resources Protective Services** Welding Technology

All programs meet 5 days a week for approximately 2.5 hours a day. Attendance, grades, and behavior are all cosidered when a student applies for admission.

There is minimal cost to the student. If finances are questionable, financial aid may be available.

Allied Health Occupations

CIP Code: 51. 0899

Taught:

Anatomy and Physiology

Communication

Emergency Care and Disaster Preparedness

Health Care Provider Skills

Human Needs and Human Development

Infection Control

Medical Abbreviations

Medical Terminology

Moving, Lifting, and Positioning

Nutrition and Hydration

Professionalism and Legal Issues

Safety



This program is designed to prepare the student for an entry level position into the healthcare field.

First year students learn about healthcare career, healthcare settings, on patient care skills, medical terminology, anatomy and physiology, workplace safety and infection control.

Second and third year students expand their comprehension for more diverse healthcare issues and develop advanced care skills. Participation in the Co-op program is strongly encouraged during the students third year of the program.

This program benefits students planning to attend secondary schooling for healthcare careers by providing a solid foundation of

relatable knowledge.





In This Field:

Certified Nurse Assistant
Patient Care Technician

Phlebotomist

Medical Assistant

Licensed Practical Nurse (LPN)

Registered Nurse (RN)

Physical or Occupational Therapy Aide

Auto Body Repair Technology

CIP Code: 47. 0603

Taught:

Custom Paint Vinyl Graphics

MIG Welding

Refinishing

Bench Setup & Pulling Procedures

Measuring and Reading

Frame Charts

Plastic Repair

Hand Tools

Glass Replacement

Straightening Procedures

Wheel Alignment

Unibody Theory & Design

Estimating

Fiberglass Repair

Part Replacement

Fabrication of Metal Patches

Hydro Graphics

The student develops MIG welding skills and becomes familiar with hand tools and their uses. They also learn collision and plastic repair, refinishing and painting techniques for surface materials, and damage estimating.

The Auto Body student will analyze damage to unibody structures, look up manufacturer's paint codes, and mix the correct colors of paint.

An understanding of mixing ratios and proportions of refinishing products will be covered in the program. A state of the art down-draft spray booth is available for the development of refinishing skills.







In This Field:

Automobile Damage Appraiser
Automobile Body Repair
Painter

Building Construction Technology

CIP Code: 46.9999

Taught:

Hand Tools

Power Tools

Residential Concrete/Masonry

Rough Framing

Exterior Finish

Interior Finishes

Estimating

Stair Building

Trade Math

Trade Blueprint Reading

Drawing Interpretation

Cabinet Making

Electrical

Heating

Paperhanging

Painting





This course begins with the use and care of hand tools. Power tools are introduced with a major emphasis on safety. Rough framing, roof framing, exterior 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.



In This Field:

eer

Electrician

Rough Carpenter

Finish Carpenter

Cabinet Maker & Installer

Roofer

Sider

Masonry

Furnace Installer & Repairer

Drywall Applicator

Cement Finisher

Painter - Brush & Spray

Paperhanger

Computer Aided Drafting & Design

CIP Code: 15. 1301

Taught:

The Basics

Basic Math Skills

The Graphic Language

Geometric Constructions

Instrument Drawing

Sketching and Shape Description

Multi-View Projection

Mechanical

Auxiliary View Drawings

Sectional View Drawings

Threads and Fasteners

Dimensioning

Assembly & Sub Assembly

Drawings

Detail Drawings

Bill of Materials

Architectural

Floor Plans

Foundation Plans

Electrical Plans

Roof/Floor Framing Drawings

Elevation Drawings

3D Modeling

The CADD curriculum prepares the students for entry-level skills as a mechanical or architectural draftsperson. Basic drafting fundamentals on the drafting board, applied mathematics and basic geometry, and computerized drafting (CAD) comprise the Computer Aided Drafting & Design curriculum.

- AUTOCAD MECHANICAL
- **INVENTOR**
- **REVIT**
- AUTOCAD ARCHITECTURE





In This Field: Detailer

Drafter, Architectural

Drafter, Civil

Drafter, Computer Assisted (CAD)

Drafter, Electronic

Drafter, Electrical

Drafter, Mechanical

Computer Information Systems

CIP Code: 52. 1201

Taught:

Safety

Professional Business Procedures

W Business Law and Ethics

Computer and Internet Fundamentals

Data Analysis Software

Database Administration

Programming and System Development

Computer Maintenance/Troubleshooting







The Computer Information Systems program is a three-year program designed to prepare 10th, 11th, and 12th grade students for entry-level employment in today's IT world. Occupational objectives include Computer and Information Systems Managers, Computer Systems Analysts, Computer Support Specialist, Computer Programmers, Database Administrators, and Computer Network Architects.

First year CIS students will concentrate on computer and Internet funamentals, data analysis, database administration, and be introduced to programming and system development. They will concentrate on receiving industry certifications including TestOut Desktop Pro, Microsoft Office Specialist: Word, Excel, and Access. Second year students will be introduces to computer maintenance and troubleshooting. This year will focus on receiving their TestOut PC Pro, TestOut Network Pro, CompTIA A+, and CompTIA Network + industry certifications.

Third year students will concentrate on programming and system development. Programming languages wil include Java, HTML, CSS, JavaScript, and Python. Seniors will also refresh all of their skills to prepare for the NOCTI assessment at the end of the year.

In This Field: Computer Network Architects Computer Programmer Computer Support Specialists Database Administrators

Software Developers

Culinary Arts

CIP Code: 12.0508

Taught:

S/P2 Certifications
ServSafe Certification

Food Service-Chef

Orientation

Kitchen Safety & Sanitation

Use & Care of Equipment

Standard Recipe Use

Seasoning

Salads, Fruits, & Salad

Dressing

Stock Soup & Sauces

Meat Cookery

Cashier (Clerical) II

Breakfast Cookery

Dishwasher Machine

Menu Planning & Costing

Fast Food Training

Personal Skills & Appearance

Safety & Sanitation

Pre & Post Service Duties

Fork Lift Certification

Fire Extinguisher Certification

CPR Certification

The culinary arts department is divided into two phases: chef training (including baking) and waiter/waitress training. The chef training emphasizes the basic principles of 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. Students will have the opportunity to achieve ServSafe (food handling) certifications.





In This Field:

Cook

Cook Helper

Cook, Short Order I

Pantry Goods Maker

Cook, Pastry (Baker)

Kitchen Helper

Waiter/Waitress-Informal

Waiter/Waitress-Take Out

Dining Room Attendant

Host/Hostess Restaurant

Dental Assistant

CIP Code: 51.0601

Taught:

OSHA Regulations
Chairside Assisting

Communication Skills

Office Management

Infection Control Radiology

Anatomy & Physiology

Histology

Microbiology

Oral Anatomy

Oral Embryology

Oral Pathology

Dental Emergencies





Dental assistants carry out a wide variety of jobs within a private dental office, clinic, or hospital setting.

During dental procedures, assistants work alongside the dentist to provide a second pair of hands while giving comfort to the patient.

Some of these jobs include, but are not limited to, greeting patients, preparing procedure trays, mixing required dental materials, evacuation of fluids, the transfer of instruments, and instrument sterilization.

They also give oral hygine instructions along with pre- and post-operative instructions and nutrition counseling.



In This Field:

Dental Asistant
Lab Technician

Sterilization Assistant

Dental Sales Representative

Dental Claims Processor

Dental Radiology Technician

Early Childhood Education

CIP Code: 19.0708

Taught:

Child Development

Child Psychology

Parent Relations

Personal Management

Business Management

Communication

Nutritional Education

Classroom Management

Lesson Planning

Pediatric First Aid

Infant/Child CPR

Identify Diseases

Identify Medical

Conditions

Critical Development

Safety and Supervision



This program focuses on the provision and management of child care services and prepares individuals to plan, design, and manage child care facilities. It also focuses on programs that meet children's developmental needs and interest and that provide safe and healthy environments.

This program includes instruction in child development and psychology; home and institution-based child care; identification of diseases, injuries, and psychological trauma and applicable referrals; parent relations; personnel and business management principles; and related laws and policies.







Electronic Technology

CIP Code: 15.0303

Taught:

Direct Current

Alternating Current

Robotics

Electronic Principles

3-Phase Systems

Digital Electronics

Electronic Communication

Programmable Logic Controllers

Microprocessor Systems

Optoelectronics

Industrial Electronic Systems

Soldering Certifications

Math for Electronics

Basic Electricity

Advanced Electrical Principles

OSHA 10





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.*



In This Field:

Electronics Assembler

Electronic Engineer

Electronics Quality Control

Electronic Sales & Service Technician

Electrical Engineer

Equipment Installer

Electronics Technician

Electronics Mechanic

Heating, Ventilation, & Air Conditioning

CIP Code: 47.0201

Taught:

Hand and Power Tools
Workplace Safety
Customer Relations

Soldering and Brazing Refrigeration Systems

Heating Systems

Air Conditioning Systems

Air Properties

Job Skills

Electrical Diagrams

Blueprints

Control Wiring

Motors and Starting Devices

Relays, Switches, Circuits

Single/Three Phase Wiring

Electronic Control Devices





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.

In This Field:

Refrigeration Mechanic

Heating & Air Conditioning Mechanic

Air Conditioning & Heating Engineer

Refrigeration Engineer

Energy Management Control Engineer

Factory Service Representative

Estimator

Stationary Engineer

HVAC Contractor

Energy Auditor

Sheet Metal Worker

Heavy Equipment Repair Technology

CIP Code: 47.0613

Taught:

Operation of Diesel Engines
Engine Components
Test Equipment and Service

Tools

Engine Inspect and Service Cooling Systems

Welding-Arc

Oxyacetylene Fuel Systems

Electrical Systems

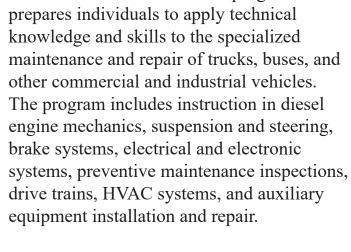
Engine Rebuild

Fuel and Exhaust Systems

Inspect and Service Power

Trains

Brakes and Steering System



This is an instructional program that







In This Field:

Diesel Engine Specialists
Chemical Technician

Farm Equipment Mechanics

Heavy Equipment Mechanics

Recreational Vehicle Technicians

Tire Repairers and Changers

Transportation Inspectors

Diesel Engine Repair

Trailer Mechanic

State Inspection Mechanic

Heavy Equipment Operator

Parts Supply Technician

CDL Truck Driver

Bus and Truck Mechanics

Machine Tool Technology

CIP Code: 48.0501

Taught:

Orientation & Safety
Bench Work Measuring Tools
Orill Press

Engine Lathe

CNC Milling Machine Programming

CNC Turning Center Programming

Blueprint Reading

Surface Grinder

Bench Work Layout Tools

Band Saw

Shop Math

Hardness Testing

Miscellaneous Shop Opeerations

Vertical & Horizontal Milling Machine

Blueprint reading, understanding instructions, mental alertness with good handeye coordination are necessary ingredients for the machine tool tech 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 CNC turning center. This enables the student to learn current technology as it relates to computer-controlled machinery. Students who meet certain criteria are eligible to take the NIMS (National Institute for Metalworking Skills) certification tests.







In This Field:

Engine Lathe Setup & Machinist

Milling Machine Setup & Machinist

Computer Numerical Control Machine Setup
Operator

Drill Press Setup & Machinist

Horizontal Boring Mill Machinist

Tool and DIE

Preformance Automotive Engine Builder

Natural Resources

CIP Code: 01.0601

Taught:

Agricultural Safety
Agricultural and Human Culture
Integrated Pest Management

Integrated Pest Management Plant Anatomy/Nutrition Plant Identification **Environmental Conservation Agribusiness/Horticulture Sales Soil Science** Sustainable Agriculture **Plant Propagation Greenhouse Management Bio Engineering/Technology Equipment Operation Career Readiness Pruning** Lawn/Turf Management Aquaponics/Hydroponics Landscape Design/Maintenance





A combination of subject matter and planned learning experiences dealing with conservation and natural resources such as air, forests, soil, aquatics, plants, and wildlife are a part of this course.

Students are able to explore interests and pursue careers in forestry, horticulture, landscape, recreational land use, environmental protection, and a variety of related careers.

The main focus areas of the program are landscape and horticulture. Students are instructed in the use of tractors, mowers, greenhouse operation, and tools used in the natural resources fields.



In This Field:

Agribusiness Consultant
Environmental Consultant
Horticulture Specialty Grower
Landscape Architect/Designer

Landscape Gardener/Supervisor

City Planner (Parks/Street Trees) We

City Planner (Parks/Street Trees)Wetlands Conservationist

Integrated Pest Manager/Applicator
Park Ranger

Protective Services

CIP Code: 43.9999

Taught:

Law Enforcement/Security

Self Defense

Weapons Defense

Vehicle Code & Crimes Code

Procedures & Law

Essentials of Firefighting

Hazardous Materials Response

Healthcare Provider, CPR, AED, & Emergency

Medical Responder FEMA/NIMS/ICS

Emergency Telecommunicator

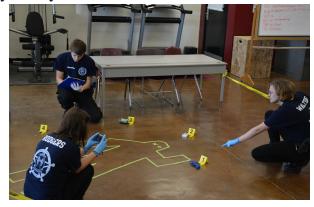
Physical Fitness





Protective Services is designed to maximize the student's marketability after graduation. The newly acquired skills will enable the student to walk-on to several entry-level jobs, or to continue mental, physical, and moral attributes to be successful in the Protective Services fields. Students will engage in a weekly regimen of physical fitness and will be required to keep their uniforms along with appearance up to a standard.

Throughout the program, students will build confidence in themselves and their peers. Responsibility and leadership are key parts of the program that will follow them throughout their career. Students must possess a "failure is not an option" attitude every day to succeed as this program will be challenging both mentally and physically.



In This Field:

Patrol Officer

Criminal & Accident Investigation

Evidence Technician

Correctional Officer

First Responders (EMS)

Fire & Rescue

Dispatcher

Probation and Parole Officer

Welding Technology

CIP Code: 48.0508

Taught:

Introduction/Orientation of Welding
Occupation Orientation & Safety
Principles of Welding

Welding, Drawing, & Weld
Symbol Interpretation
Visual Examination, Inspection, & Testing
Shielded Metal Arc Welding (SMAW)
Gas Metal Arc Welding (GMAW)
Flux Core Arc Welding (FCAW)
Gas Tungsten Arc Welding (GTAW)
Manual Oxyfuel Gas Cutting (OFC)
Mechanized Oxyfuel Gas Cutting (OFC)
Manual Plasma Arc Cutting (PAC)

The Course deals with blueprint reading, use of hand tools, oxyfuel setup and cutting, Stick, MIG, TIG, and Flux Core welding in various test positions.

The student will cut metal using a variety of cutting processes. Students will preform qualification testing for the American Welding Society. Safety is stressed throughout the course. All students receive OSHA 10.

This course is a 3 year program that meets for a total of no less than 400 hours per year.





In This Field:

Combination Welder

Arc Welder

Tack Welder

Welder's Helper

Assembler Welder

Sheet Metal Worker

Thermal-Cutter Machine Operator

Supervisor/Foreman

Welder Inspector

Pipeliner

Steamfitter Apprentice

Iron Worker Apprentice

Welding Engineer

Pipefitter Apprentice

Boilermaker Apprentice

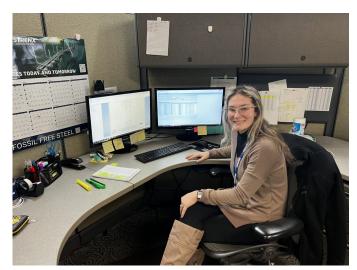
Cooperative Education



CONAIR



TIME MACHINE, INC



KOMATSU MINING CORP.

The Cooperative Education Program at Venango Technology Center is an avenue used to give select students additional training beyond what we can provide inside the school walls. Recommendations for Co-op are made by the program instructors, based on the criteria such as attendance, attitude, grades, and skill level.

A Cooperative Education student replaces Tech Center hours with time working in a position that will advance their skills in their chosen area. In addition to advanced training, the student receives a "real life" daily work experience, school credit for that experience, a paycheck, and possibly most valuable - a recommendation for a future position.

PATTCHBACK

WITHERUP FABRICATION AND ERECTION

We thank these, and many more, community businesses for their support of our Cooperative Education Program

Support Services

Venango Technology Center (VTC) teachers play a significant role in helping students select their program. That role involves providing program information during program tours, classroom and hands-on experiences during the follow-up half-day visits, and interaction with students.

When it is known to VTC that a student with an IEP is interested in coming as a first year student, the Special Populations Coordinator (SPC) receives a copy of the IEP from the home school district. Current students' 5. Evaluation of writing for content rather than IEP meetings are attended by the SPC and the teacher will participate via phone as needed.

VTC has developed an information sheet in cooperation with the sending schools learning support departments. This sheet is completed by the VTC Teacher and the SPC and sent to the case manager of the student. The VTC SPC is available to help with the special accommodations of the individual needs of the students.

Services available as determined by the IEP may include the following:

- 1. Modified assessments and assignments
- 2. Use of notes with assessments
- 3. Assessments presented orally
- 4. Assessments presented in a supported or altered environment
- mechanics
- 6. Small group testing
- 7. Structured study guides
- 8. Additional time to complete assignments
- 9. Directions clarified and repeated as necessary
- 10.Extended time for assessments
- 11. Modified grading structure
- 12. Re-take of assessments if failed and failure was due to insufficient adaptations
- 13. Presentation of a hardcopy of notes
- 14. Regular monitoring of organizational skills
- 15. Monitoring of time on task

Nontraditional Careers

What is a nontraditional career?

Nontraditional occupations are those in which less than 25% of a gender is represented. These occupations offer higher salaries, challenging work, and advancement potential.

Examples for Females:

- Welder
- Police Officer
- Construction Worker
- Computer Technician
- HVAC Technician
- Insurance Adjuster





Examples for Males:

- Registered Nurse
- Early Childhood Teacher
- Medical Records Specialists
- Dental Hygienist
- Dental Assistant
- Social Worker

Why choose a nontraditional career?

- Jobs are in high demand fields
- Excellent benefit packages
- Earn 20-30% more than traditional jobs
- Achieve a high degree of job satisfaction
- Support your family on a single income

COLLEGE ARTICULATIONS

Venango Technology Center offers College Articulation Agreements for the following Programs:

- Allied Health Occupations Butler County Community College BC3
- Auto Body Technology Rosedale Technical College and Thaddeus Stevens College of Technology
- Automotive Technology Rosedale Technical College and University of Northwestern Ohio
- **Building Construction Technology** Rosedale Technical College, Triangle Tech, and Thaddeus Stevens College of Technology
- Computer Aided Drafting & Design Pittsburgh Technical College PTC and Triangle Tech
- Computer Information Systems Butler County Community College BC3 and Pittsburgh Technical College PTC
- Culinary Arts Pittsburgh Technical College PTC
- **Electronics Technology** Triangle Tech, Butler County Community College BC3, Rosedale Technical College and Pittsburgh Technical College PTC
- Heating, Ventiliation, and Air Conditioning Pittsburgh Technical College PTC
- Heavy Equipment Repair Technology Rosedale Technical College and University of Northwestern Ohio
- Machine Tool Technology Thaddeus Stevens College of Technology
- Natural Resources Butler County Community College BC3
- **Protective Services** Pennsylvania College of Technology and Pittsburgh Technical College PTC
- Welding Technology Ohio Technical College OTC (Education), Rosedale Technical College, Triangle Tech, and Thaddeus Stevens College of Technology

FAQs: Frequently Asked Questions About VTC

Can I go to college if I attend VTC?

Yes! Many of the programs we offer have agreements with colleges and technical schools to use what you have learned at VTC toward credits in their institutions.

Can I stay in college prep courses at my current school?

Yes! You are encouraged to take advanced courses so you will be eligible for college credits after you graduate.

Are there any costs if I attend?

There are various costs for uniforms in some shop areas. Financial aid is available.

What if I am told I am "too smart" or that it is not my "best option?"

If you know what your career path is, go for it! Nothing should stop you from getting a head start on your college-level education in high school... for free!

Can I still play sports and other activities at my high school?

Absolutely! You are encouraged to be involved. The more activities on your resume, the better success you will have in higher education and getting a job.

What if I choose the wrong program?

There is no such thing as the wrong program. It is all part of your journey to your future education and/or employment. You also have the option of switching shop areas if you change your mind, depending on what areas have space in their classes.

Clubs & Activities:

American Welding Society
National Technical Honor Society
Skills USA
Student Senate
VEX Robotics

SPOTLIGHT VTC































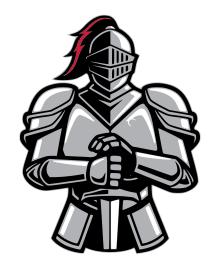
















Start your future today with us at Venango Technology Center







Proudly Serving Students from Seven Area High Schools: Cranberry, East Forest, Franklin, Oil City, Rocky Grove, Titusville, and West Forest