



CareerTech

Franklin County Career & Technology Center



COURSE CATALOG

Member School Districts

Chambersburg | Fannett-Metal | Greencastle | Shippensburg | Tuscarora | Waynesboro



apply online at www.franklinctc.com

The Results from Recent Grads are In...

94% Recommend CareerTech to other students

99% Said CareerTech prepared them for the future

49% Plan to work full-time while **44%** are off to college

96% Say instructors are knowledgeable about the curriculum

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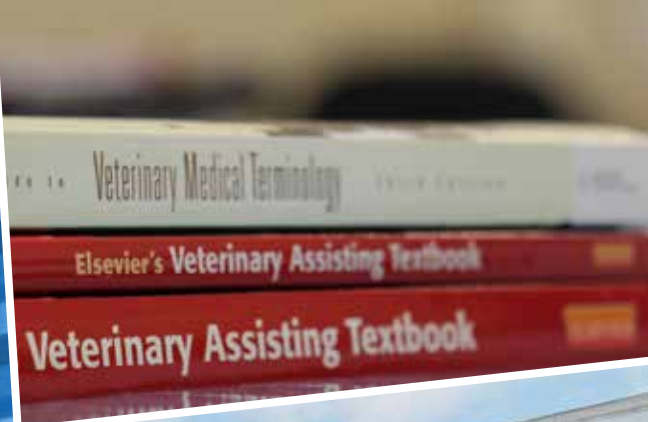
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EXPLORE. DISCOVER. SUCCEED.

Franklin County Career and Technology Center promotes lifelong learning and prepares students for careers and post-secondary education.

Since opening in the fall of 1969, we have expanded to include 25 programs in five academies. Recently the school underwent a \$14 million renovation to add more space and update programs. With this evolution, the time was right for a rebrand. The nickname CareerTech was chosen to better reflect the scope of career and technical education possibilities. Our mission is to promote lifelong learning and to prepare students for careers and post-secondary education.



Serving School Districts in the Greater Franklin County Area

The Franklin County Career and Technology Center course catalog is to be used as a guide for course selection for the upcoming school year. Visit apply.FranklinCTC.com for our online application form that must be completed in order for you to make your program selection. You may visit our website or contact your guidance counselor for assistance in choosing a program to study.

Regular attendance and academic proficiency is expected of all students who attend CareerTech. Students will receive professional development education as part of their technical training. Employability skills, combined with academic proficiency and sound technical training, will build a firm foundation for a successful career or pursuing post-secondary education. In addition, our students learn very quickly the importance of practicing the "4 Ps" while attending our school. Students must be prompt, prepared, polite, and positive in their daily activities. The character created here at CareerTech will secure benefits for the future.

Explore the options available at CareerTech. Learn about industry certification opportunities, post-secondary offerings, and other activities connected with each program area. More information can also be obtained from our website at FranklinCTC.com.

Non-Discrimination Policy

The Franklin County Career and Technology Center does not discriminate on the basis of race, color, national origin, sex, disability or age in its program and activities. Inquiries may be directed to the Franklin County Career and Technology Center Title IX and Section 504 Coordinator by contacting the Administrative Director, 2463 Loop Road, Chambersburg, PA 17202, Telephone (717) 263-9033 x 213.

CareerTech Is An Equal Opportunity Institution

Adult Education Opportunities

Franklin County is Growing and So Can You



Franklin county has consistently ranked among Pennsylvania's fastest growing counties in recent years. Companies are investing more than \$100 million in Franklin County, creating and retaining many jobs for the foreseeable future.

Career Tech offers many different courses for adults that will prepare them for this growing workforce. Courses include: Welding certification classes, HVAC certification classes, Forklift and Warehousing certification classes, Certified Nursing Assisting, PA State Auto Inspection and Emissions licensing and Residential and Commercial Electricity classes. Other personal enrichment classes include: Home Repair and Woodworking, Small Engine Repair, Microsoft Office, Accounting, Medical Office Practices, and Medical Terminology.



The Franklin County Career & Technology Center Practical Nursing Program has prepared students to become Licensed Practical Nurses since 1958. Students attend full time for one year (50 weeks). The program is fully approved by the Pennsylvania State Board of Nursing and accredited by Accreditation Commission for Education in Nursing (ACEN). Excellent outcomes include program completion rates of over 90%, licensure exam first time pass rates averaging above 92%, job placement with incomes averaging \$42,000. Visit FranklinCountyLPN.org or contact Kathleen Rundquist (717) 263-5667 for more information.



Construction



BUILDING CONSTRUCTION

The Building Construction Trades Program provides a variety of skills and expertise that are required for the completion of projects in the construction industry. Positions in the field include general contractor, project manager, construction company owner, and code enforcement inspector, among others. This program introduces students to the industries of construction, carpentry, masonry, electrical and plumbing. Students completing this program will be prepared to enter an apprenticeship program or pursue post-secondary education.

Technical Skills

- Basic masonry skills
- Planning and installing house wiring
- Knowledge of residential wall, roof, stair and floor-framing parts and assembly
- Basic codes and standards for residential plumbing

Career Opportunities

- Mason
- Carpenter
- Plumber
- Electrician
- Construction Manager
- Pipefitter
- Plumbing Service Tech
- Gas Fitter

Industry Certifications Available

- OSHA Certification
- Associated Builders and Contractors CORE Training and Certification
- TracPipe Installation Cert.
- VIEGA - Pro Press Cert.
- Fork Lift Operator



CARPENTRY

Carpentry is a skilled trade in which the primary work performed is in the use of wood to construct items as large as buildings and as small as desk drawers. Students will develop skills and the technical knowledge to layout, fabricate, frame, and install/repair structures and fixtures using hand and power tools. Students will have the opportunity of working for local nonprofit and community-based organizations, which provides valuable real-life experience.

Technical Skills

- Wood framing
- Metal framing
- Interior finishes, including drywall and trim
- Exterior finishes, including insulation and roofing
- Building site layout and estimating
- CNC Machining
- Blueprint drawing via CADD based system
- Project Management Software
- Basic Cabinetmaking

Career Opportunities

- Carpenter
- Carpenter Apprentice
- Cabinet-Maker
- Wood Machinist
- Home Improvement Installer

Industry Certifications Available

- OSHA Certification
- Associated Builders and Contractors CORE Training and Certification
- Hilti Powder Actuated Fastener System
- Hilti Epoxy Anchor Installation Certification
- Hilti Firestopping Solutions
- NCCER Credentials



ELECTRICAL OCCUPATIONS

The electrical occupations program offers the skills and theoretical background needed for a variety of careers. The knowledge gained can be applied to residential, industrial, and commercial electrical maintenance and application of electrical systems. Pneumatic theory, AC motors and controls are also taught in this program. Students completing this program may elect to take the Chambersburg Borough Master Electrician Exam after a required level of field experience.

Technical Skills

- Electrical theory
- Wiring for residential, commercial and industrial locations
- Industrial motor control/automation

Career Opportunities

- Residential Electrician
- Commercial/Industrial Electrician
- Telecommunication Technician
- Maintenance Electrician

Industry Certifications Available

- OSHA Certification
- NCCER Credentials



HEATING, VENTILATION & AIR CONDITIONING

In the HVAC field, professionals typically install, maintain, and repair heating, air conditioning, and refrigeration systems. In the duration of this program, students will apply the principles of cooling and heating to duct work, controlling humidity, and the operation of electrical control systems. Students will work closely with the plumbing and electrical program on related studies. An educational partnership with local HVAC companies enhances the experience.

Technical Skills

- Heating systems with heat pumps, gas and oil furnaces, and hydronic heat
- AC Systems
- Sheet metal and fiberglass duct, electricity, refrigeration and plumbing

Career Opportunities

- Heating, AC, and Refrigeration Mechanics and Installers
- HVAC Apprentice

Industry Certifications Available

- OSHA Certification
- American Ladder Institute Certifications
- NCCER Credentials
- EPA Refrigerant Certifications



Health Sciences



ALLIED HEALTH

The prevention, treatment and management of illness and the protection of mental and physical well-being are services provided by health care professionals. The Allied Health program provides instruction in a variety of health-related occupations under the instruction of two Registered Nurses. Included are clinical experiences in health-related careers. There are multiple certifications available, with the opportunity to enter into high-paying entry-level positions upon graduation, or pursue post-secondary education.

Technical Skills

- Anatomy and Physiology
- Medical Terminology
- Nurse Aide training/certification
- Introduction to Allied Health
- Diversified Health Occupations
- More than 75 hands-on client care skills

Career Opportunities

- Licensed Practical or Registered Nurse
- Occupational Therapist (or Assistant)
- Physical Therapist (or Assistant)
- Speech Therapist
- Radiologist/Ultrasound Technician
- Phlebotomist
- Nurse Aide
- Surgical Technician

Industry Certifications Available

- CPR and AED Training
- Nurse Aide Registry - PA
- Direct Care Provider Certificate - PA
- OSHA for Healthcare
- BBP



DENTAL ASSISTING

Students will learn how to aid the dentist and dental hygienists in patient care. This program provides the techniques needed for every aspect of assisting in a dental office to include taking x-rays and scheduling appointments. Instruction provided will articulate toward training required to obtain a Certified Dental Assisting (CDA) certification. Students also receive the same general instruction as other Health Academy Programs including: Office Procedures, Health Care Communications, Ethics and Professional Responsibilities, Infection Control, Health Care Law, Human Wellness and Disease, First Aide, CPR and Safety & Emergency.

Technical Skills

- Introduction to dental assisting
- Anatomy, physiology, pharmacology
- Dental laboratory procedures, including taking impressions, sterilizing, and making whitening trays
- Radiology (x-rays)
- Periodontics and Prosthodontics

Career Opportunities

- Dental Assistant
- Administrative Medical/ Dental Assistant
- Patient Support Associate
- Dental Hygienist
- Medical Occupations
- EFDA (Expanded Functions Dental Assistant)

Industry Certifications Available

- CPR Training & AED Training
- CDA (Certified Dental Assistant) - Must have a high school diploma, CPR Certification, and 3,500 hours of work experience
- Radiology Certification - can be earned through the state of PA once course is completed
- Heartsaver Bloodborne Certification
- OSHA Certification-Healthcare



MEDICAL ASSISTING

Medical Assistants perform administrative and/or clinical tasks to support the work of other health professionals. Core curriculum includes the study of anatomy and physiology, health insurance coding and billing, medical terminology, and pharmacology. Students will receive clinical training in phlebotomy, medication administration and performing EKGs. This program will prepare students to enter the workforce as a medical assistant, or to pursue post-secondary education.

Educational Outlook

- Administrative functions of a medical office
- Clinical functions of a medical office, including EKG, phlebotomy, vital signs, patient education, assisting with minor surgeries/procedures, wrapping or splinting, suture/staple removal, wound care, urostomy/colostomy care
- Medical terminology
- Anatomy & physiology
- Pharmacology and medication administration

Career Opportunities

- Clinical Medical Assistant
- Administrative Medical Assistant
- Patient Support Associate

Industry Certifications Available

- BLS Healthcare Provider
- Certified Clinical/Medical Assistant through The National Health Care Association
- CPR and AED Training
- OSHA Certification-Healthcare
- Personal Care Home Direct Care Staff Certificate



VETERINARY ASSISTING

Veterinary Assistants care for the well-being of animals by doing routine tasks under the supervision of veterinarians and technologists. This three-semester preparatory program connects classroom theory and laboratory experiences in areas including overall care in husbandry of companion animals, assisting with preparation and recovery for surgical procedures, proper nutrition, preventative medicine, basic grooming techniques, laboratory procedures, upkeep of medical records, and interpersonal relationships. Upon graduation, students will be prepared for entry level employment or postsecondary education.

Technical Skills

- Medical terminology
- Animal care & management, including diseases and parasites, anatomy and physiology, husbandry, restraint, and basic grooming techniques
- Lab Procedures including urine, stool, and blood
- Clerical tasks & client relations, including record keeping, scheduling, billing, and collections
- Anatomy & physiology
- Surgical assisting

Career Opportunities

- **Entry Level**
 - Veterinary Assistant
 - Veterinary Receptionist
 - Animal Caretaker
 - Grooming Assistant
 - Kennel Assistant
- **Post-Secondary**
 - Veterinary Technician
 - Veterinary Technologist
 - Veterinarian

Industry Certifications Available

- NAVTA Approved Veterinary Assistant (AVA)
- OSHA Certification



Sales and Human Services



COSMETOLOGY

Cosmetology focuses on chemical texturizing, coloring, cutting, styling, manicuring, pedicuring, artificial nails and skin care. The classroom experience includes work on mannequins, other students and the general public. Salon management, anatomy, sanitation, chemistry, electricity, and state laws are areas of focus. Students will receive 1250 hours of instruction, and are eligible to test to become a licensed cosmetologist in Pennsylvania.

Technical Skills

- Hair care – chemical texturizing, coloring, cutting and styling
- Nail care – manicure, pedicure & artificial
- Skin care – facials, makeup and hair removal
- Sanitation & PA State Board of Cosmetology rules and regulations
- Salon management

Career Opportunities

- Cosmetologist
- Nail Technician
- Esthetician
- Lash Specialist
- Cosmetology Instructor
- Platform Artist
- Sales Consultant

Industry Certifications Available

- Upon successful program completion, student is eligible to take the State Board of Cosmetology Examination
- Esthetician
- Nail Technician
- S/SP2-Cosmetology
- OSHA Certification



CULINARY

A culinary professional is responsible for skillfully preparing meals with an extensive understanding of diet and nutrition. Culinary professionals can find careers in restaurants, delis, hospitals, and other institutions. This program focuses on the proper techniques and skills, with emphasis on hand tools and equipment usage, to prepare for restaurant food production, institutional, personal cooking, baking, and food sales/service. Students will gain hands-on experience with the operation of a school restaurant and serving unique dishes. There are many possibilities to gain experience with catering and banquet events throughout the school year.

Educational Outlook

- Sanitation and safety requirements
- Cooking and baking
- Dining room service
- Foodservice math
- Collaboration skills

Career Opportunities

- Chef
- Server
- Restaurant Owner
- Baker
- Pastry Chef
- Hospitality

Industry Certifications Available

- ServSafe/Manager Food Safety Certification
- National Restaurant Association
- ServSafe Food Handler Certification
- OSHA Certification



Early Childhood Education

The Early Childhood Education program provides students with skills that will prepare them to enter many different career paths in the early childhood setting. The program coursework focuses on all stages of early childhood from birth through early elementary school. Students will have the opportunity to interact directly with preschool-aged children in our own preschool lab. Students will learn about best practices, child development, educational theory, lesson planning and curriculum design, how to interpret and implement learning standards, and how to design a safe and inviting learning environment. Successful students will enjoy working with and teaching young children, and problem-solving skills are crucial. Working cooperatively with others is essential, as many positions in early childhood care and education are those with a chain of command and that require team planning and preparation. To succeed in this field, you must have the ability to get along with others, have a positive self-image, have an interest in children and their development, possess good communication skills, have a good sense of humor, be creative and reliable, practice patience and understanding, be a problem-solver, be organized and implement planning strategies, and be flexible and adaptable in a constantly changing environment.

Technical Skills

- Maintain a safe play environment
- Support children's emotional & social development
- Instruct children in health and personal habits
- Create developmentally appropriate lesson plans
- Read to children and teach them simple painting, drawing, handicrafts, and songs
- Operate in-house day-care centers

Career Opportunities

- Childcare Worker
- Pre-School Teacher
- Nanny
- Childcare Administrator
- Personal Care Aide

Industry Certifications Available

- OSHA Certification
- Child Development Associate (CDA)
- CDA – Ready Certificate
- Early Childhood Education
- Education Fundamentals
- Advanced Child Care
- Child and Infant First Aid and CPR (American Heart)
- Act 31 Mandatory Reporter Training



GRAPHIC COMMUNICATIONS

Graphic communications is a creative process, often involving a client and a designer that rely on printers, sign makers, etc. to provide consistent results. The purpose of graphic communications is to distribute a message to a targeted audience. In this program, students will gain experience with Adobe's graphic design applications, operate the school print shop, and provide copier management for the school. Upon graduation, students will be prepared for an entry-level position or to pursue post-secondary education.

Technical Skills

- Graphic design fundamentals
- Screen printing operation
- Offset press operation
- Wide-format printing/
Vinyl signage
- Digital output production
- Specialty graphic imaging

Career Opportunities

- Graphic Designer
- Digital Media
- Printing Press Operator
- Vinyl Decal Printer and Installer
- Screen Printer
- Digital Output Operator

Industry Certifications Available

- Adobe Certified Associate – Visual Communication with Adobe Photoshop
- Adobe Certified Associate – Graphic Design and Illustration with Adobe Illustrator
- Adobe Certified Associate – Print & Digital Media Publication with Adobe InDesign
- OSHA Certification
- Fork Lift Operator Certification



LANDSCAPING AND HORTICULTURE

Landscaping and horticulture is an instructional program that focuses on landscape design, installation, and maintenance for commercial or residential property. Students will gain experience in hardscape application, such as retaining walls, dry-laid paver patios, walkways, and pond installation. They will also study floral design and greenhouse production, with hands on experience in operating a live greenhouse at our Teens and Greens retail facility. Students are engaged in chemical safety, preparing them for a pesticide applicators license. They will explore new technologies in agriculture including hydroponics. Additional activities, including Turf Grass Management, Bio-Diversity and Wetland Development, are supported by a grant from the US Department of Agriculture. Students will also assist in maintenance of the school grounds.

Technical Skills

- Operate equipment in the horticulture field
- Read and create landscape designs
- Grow and market several types of plant material
- Proper chemical applications for trees, shrubs & turf
- Care and maintenance of plant material
- Floral design
- Growing and harvesting plants with water only
- Plant identification and production
- Irrigation
- Handling Money

Career Opportunities

- Landscape Designer
- Garden Center Employee
- Landscaping/Installing of Trees and Shrubs
- Hardscaping Designer and Installer
- Turf Maintenance
- Greenhouse Grower and Sales
- Hydroponics Turf Maintenance
- Arborist
- Tree Trimmer
- Floral Designer
- Pesticide Applicator
- Park or Golf Course Maintenance

Industry Certifications Available

- OSHA Certification -Agricultural
- PA Certified Horticulturalist
Private Applicators Spray License
- Worker Protection Standard Training



MARKETING/WEB DESIGN

Every business uses marketing for promotion. This instructional program provides training in advertising, promotion, sales, entrepreneurship, social media and web design. Students will help operate and make important decisions about our student run school store. In addition, students will learn HTML, CSS and Wordpress to create and design their own web pages. Additional studies lead into introduction to social media, channel management, visual merchandising, e-commerce and small business management. Students are prepared to obtain entry-level jobs in marketing and other business-related fields as well as further their education at a post-secondary school.

Technical Skills

- Starting a Small Business
- Social Media Management
- Retail sales and customer service
- Using Point of Sale System
- Handling and Working With Money
- Marketing, merchandising and advertising
- Web Page Design
- Inventory Management

Career Opportunities

- Sales and Retail Salesperson
- Entrepreneur
- Social Media Manager
- Web Page Designer
- Logistics
- Inventory Management
- Social Media Manager

Industry Certifications Available

- HTML5 Certification
- CSS Certification
- OSHA Certification
- Fork Lift Operator Certification



STEM/Manufacturing



(CIM)

COMPUTER INTEGRATED MANUFACTURING

Almost every product we enjoy in our modern society is made, in some way, by human beings. Airplanes, automobiles, computers medical equipment, televisions and electronic equipment are all products of manufacturing. Computer Integrated Manufacturing is a program that focuses on modern manufacturing processes found in local companies such as Volvo, JLG Industries and Manitowoc Crane. Included in the course of study is the use of both manual and Computer Numeric Controlled (CNC) and Computer-Aided Design (CAD) equipment as well as programming, precision measuring and inspection. This program includes a new exciting curricula provided through Immerse2learn and the National Institute of Metal Working Skills (NIMS) certification process.

Technical Skills

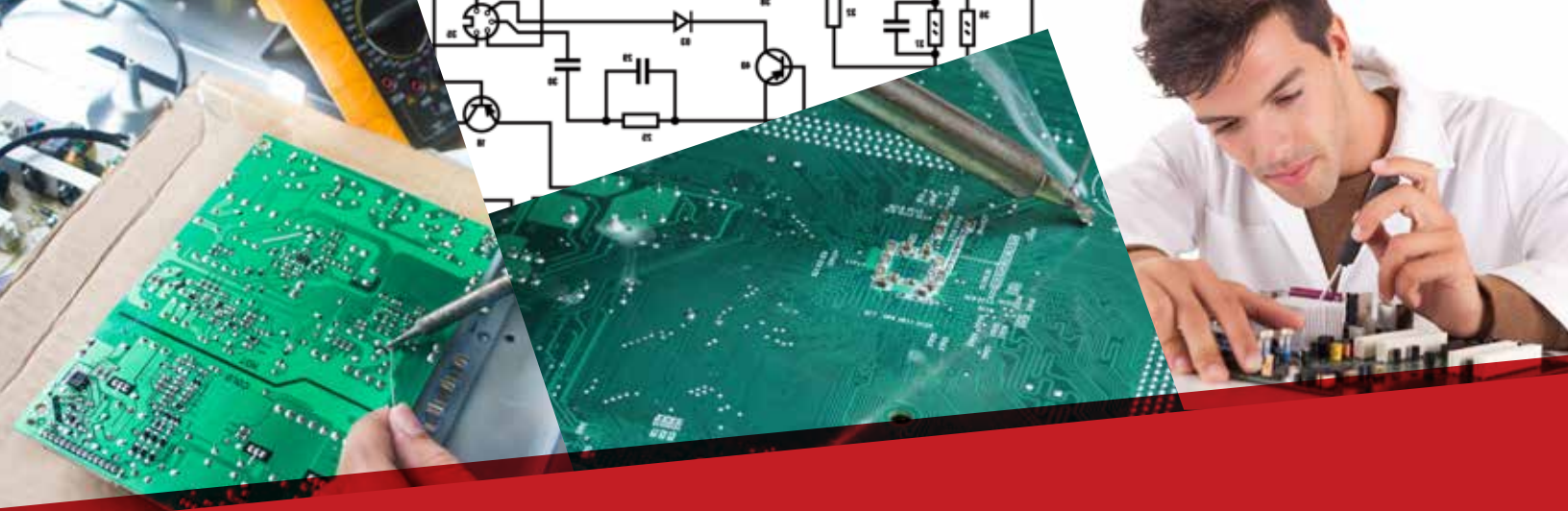
- Manual Machining
- CNC Machine set-up and operation
- How to draw sketches and read blueprints
- Precision measuring with dial calipers and micrometers
- Using MasterCAM and AUTOCAD
- GD&T (Geometrical Dimensioning and Tolerancing)
- Mechanical and component assembly

Career Opportunities

- CNC Machine Operator
- ME (Mechanical Engineer)
- Manual Machine Operator
- Material Handler
- CNC Programmer
- Quality Controller

Industry Certifications Available

- OSHA Certification
- Fork Lift Operator Certification
- National Institute of Metal Working Skills Certifications (NIMS -13 Certs. Available)



ELECTRONICS

Electrical engineering technicians help design, develop, test, and manufacture electrical and electronic equipment, which includes everything from cell phones to game systems. Students will gain an understanding of DC and AC electronic components, circuits, test equipment utilization, soldering, and analog/digital circuit analysis. Electronic theories will be applied to learn the functionality of components. Students are also introduced to basic telecommunications systems such as security, surveillance, and fire alarm systems. With several projects, students will be able to create and repair schematic diagrams and printed circuit boards, program, and repair electric circuits. The course of study will prepare students for a challenging and rewarding career.

Technical Skills

- Electronic circuit analysis
- Equipment testing
- Microcontroller programming
- Schematic diagram and printed circuit-board design
- Troubleshooting
- Soldering and De-soldering
- Wire Splicing
- Breadboarding
- Programming

Career Opportunities

- Electronics Repair Technician
- Mobile Electronics Installer
- Electronics Technician (Biomedical, Robotics, Industrial, Manufacturing, Electromechanical, etc.)
- Fire Alarm/Security System Technician
- Post-secondary – Electronics Engineer
- Post-secondary – Engineering Tech

Industry Certifications Available

- Student Certified Electronics Tech – Electronics Tech Assoc.
- Associate Certified Electronics Tech – Electronics Tech Assoc.
- Mobile Electronics Certified Pro
- Electronics Tech Assoc. DC Basics
- OSHA Certification



ENGINEERING TECHNOLOGY

Engineering Technicians and Engineers work together to design, develop, construct, test, analyze and implement objects and processes that solve problems in our world. Engineering Technology students learn to concept sketch, 3D model, and generate computer-aided technical drawings. Students also experience the use of mechanics, fluid power, robotic automation, electricity, and material properties. Manufacturing processes for prototyping are practiced, including 3D printing and CNC machining. Real-life experience is gained through Project Lead the Way program and design projects.

Technical Skills

- Design and problem solving
- 3D modeling/Technical drawing
- Electricity and electronics
- Computer aided mfg. (CAM)
- Automated machine control systems (Robotics)
- Engineering Safety
- Precision Measuring
- Kinematics
- Engineering Graphics

Career Opportunities

- Engineering Technician
- CAD/CAM Operator
- CNC Machine Programmer/Operator
- Post-secondary - Engineer (Mechanical, Manufacturing, Industrial, Civil, Electrical)

Industry Certifications Available

- Autodesk Inventor Certified User
- OSHA Certification
- American Ladder Institute Certifications
- Fork Lift Operator Certification



INFORMATION SYSTEMS TECHNOLOGY

IST is for students who love technology and are looking for a future job with high pay and a robust occupational outlook. The tech sector is booming, and IT occupations are expected to continue to grow over the next decade. Information Systems Technology focuses on the design, implementation, and management of linked systems of computers and peripherals. Included in the program are the studies of computer repair, networking, web design, the Internet and intranet (internal network), as well as the foundations of cybersecurity. Students will leave the program with multiple industry certifications and the option to apply what they have learned to credits at a post-secondary institution.

Technical Skills

- Structured-cabling installation
- Computer repair, maintenance. and upgrades
- Install and maintenance local area networks
- Installation and maintenance of client server networks
- Installation, configuration and securing of end devices for wide area networks

Career Opportunities

- Computer and Network Support Professional
- Network Administrator
- Cyber Security Specialist
- Digital Forensics Specialist
- Health Information Networker

Industry Certifications Available

- CompTIA A+
- CompTIA Network+
- CompTIA IT Fundamentals
- Cisco Certified Entry Networking Technician
- American Ladder Institute Certifications
- TestOut PC Pro
- TestOut Network Pro



MECHATRONICS

Mechatronics is a broad range of different occupations that involve electromechanical skills. These skills are a combination of electrical/electronics, motor controls, robotics, fluid power systems, (hydraulics, pneumatics, electro-pneumatics), and PLC (programmable logic controllers). The Mechatronics Program will provide students with relevant, hands-on activities that include laboratory-based projects that allow students to work with components, systems, and technology. Many of the components, controls, and systems used in Mechatronics have been utilized in the industry for many years. Program graduates will be prepared to incorporate and maintain mechanical, electrical, fluid power, and automated guided systems. With its multidisciplinary skill set, Mechatronics is a high-priority occupation, according to the Pennsylvania Department of Labor and Industry.

Technical Skills

- Electrical theory
- Fluid power
- Mechanical power transmission systems
- Industrial motor control/automation
- Safety
- Electrical theory and wiring, Motor and controls, Electronics, Robotics, Fluid power Systems, Programmable logic controllers

Career Opportunities

- Automated Manufacturing Production Technician
- Industrial Machinery Mechanic
- Industrial Maintenance Electrician
- Electrical/Electronic Technician
- Aerospace Technician, Bio-Medical Equipment Technician
- Engineering Technician
- Nuclear Plant Technician
- Power Generation Plant Technician

Industry Certifications Available

- OSHA Certification
- NCCER Credentials ABC Core



WELDING

Welding is a fabrication or sculptural process that joins metals by causing coalescence. As one of the fastest growing industries in the area, the welding program will help prepare students for a career as a welder, sheet-metal worker, industrial fabricator or industrial designer. Welders can find a variety of careers in manufacturing and fabrication. This instructional program provides learning experiences in stick, (MIG), (TIG), flux cored welding, and oxyacetylene and plasma torch cutting of metals. Students learn safe practices and uses of electrodes and welding rods, properties of metals, blueprint reading, and welding symbols and standards established by the American Welding Society (AWS).

Educational Outlook

- 5 different welding processes (SMAW, GMAW, FCAW, GTAW, OFW)
- 3 different cutting processes (PAC, OFC, A-CAC)
- Blueprint reading
- Shop math and conversions
- Fabrication and parts fit-up

Career Opportunities

- Fabricator
- Cutting Table Operator
- Welder
- Sub-Arcs Operator
- Inspectors
- Supervisors
- Salesperson
- Engineers
- Metallurgist

Industry Certifications Available

- GMAW Spray Transfer 2G
- SMAW 3G V-groove 7018
- GTAW 2F Steel Sheet Metal Code
- OSHA Certification
- Certified Welder
- Fork Lift Operator Certification, MCAW 2G



Transportation



AGRICULTURAL MECHANICS

The agricultural industry relies on specialized equipment to cultivate land, produce crops, and raise livestock. In this program, students will gain experience in maintaining outdoor power equipment, agricultural equipment, some automotive and heavy equipment, all-terrain vehicles, and lawn mowers. An introduction to welding, hydraulics, and machine work is also included.

Technical Skills

- Hand & power tool use and safety
- Outdoor power equipment maintenance and repair
- Engine theory, operation and rebuilding
- Basic welding, fabrication and machine work
- Trade math and precision measuring (micrometer reading)

Career Opportunities

- Outdoor Power Equipment Mechanic
- Diesel Mechanic
- Farm Equipment Mechanic
- Parts & Service Associate
- Welder
- Assembler
- Mobile Repair Mechanic

Industry Certifications Available

- VOLVO Assembly Training
- PennDot Certified Safety Inspector
- ASE Diesel Engine
- ASE Brakes
- ASE Steering & Suspension
- STIHL Service Training
- Timken Bearing Certification



AUTOMOTIVE COLLISION

In the industry of auto collision and repair, students will apply technical knowledge to repair damaged vehicles. Students will learn to replace interior panels, repair dented areas, repair damaged fenders, prepare surfaces for painting, and refinishing vehicles and various other projects. Students will gain an understanding of the industry with hands-on work on both school and customer vehicles. The program is working towards the addition of industrial painting.

Technical Skills

- Automotive safety, tools, and fasteners
- Basic skills of sheet metal repair
- Basic welding skills in the auto collision industry
- Use of body filler to repair dents
- Preparing estimates on damaged vehicles
- Preparing surfaces for painting and clear coating
- Virtual SIMS painting system training

Career Opportunities

- Auto Body Technician
- Industrial Manufacturing Painter
- Assembler of Industrial Products
- Auto Detailer
- Parts Salesman
- Painter in the Auto Collision Field
- Insurance Claims Adjuster
- Collision Shop Owner/Manager

Industry Certifications Available

- ASE Auto Collision Certification



AUTOMOTIVE TECHNOLOGY

Today's vehicles are highly sophisticated, using advanced technology that the average consumer cannot maintain. Customers expect qualified automotive technicians more than ever. In this program, students will prepare for a career in the service and maintenance of all types of automobiles and light trucks. Students will learn how to perform four wheel alignments, steering and suspension service, brake service, engine drivability, electronic fuel injection, and will receive electrical and electronics training. Students will gain an understanding of the industry with hands-on work on both school and customer vehicles. This program is NATEF Certified offering ASE Certification to students.

Technical Skills

- Automotive safety, tools, and fasteners
- Steering and suspension
- Brakes
- Automotive electrical and electronics
- Engine performance
- Engine repair

Career Opportunities

- Automotive Service Technician
- Automotive Salesman
- Automotive Parts Technician
- Automotive Management and Administration

Industry Certifications Available

- ASE Electrical and Electronics
- ASE Brakes
- ASE Steering and Suspension
- PennDot Certified Safety Inspector
- S/P2 - Auto Safety and Pollution
- Motor Oil Certification - Valvoline



DIESEL MECHANICS

Diesel mechanics repair, maintain, and rebuild diesel engines that power buses, trucks, ships, trains, and other vehicles. Mechanics must run diagnostic tests, troubleshoot, and remove/repair faulty parts to repair engines. In this program, students will study maintenance, repair and adjustment of diesel engines in cars and trucks, heavy-duty transmissions, drive assemblies and other heavy truck systems. Hands-on experience is provided with operable diesel engines, and heavy equipment such as Caterpillar. Biodiesel technologies will be explored.

Technical Skills

- Diesel engine parts and functionality
- Drivetrain parts and functionality
- Electrical and electronics in the diesel industry
- Installation and repair of brakes
- Installation and repair of steering and suspension
- Diagnostic tests and troubleshooting

Career Opportunities

- Truck Technician
- Agricultural Technician
- Assembly Technician
- Engine Technician
- Power Generation Technician
- Heavy Equipment Technician
- Locomotive Technician
- Marine Technician

Industry Certifications Available

- ASE Diesel Engine
- ASE Electrical and Electronics
- ASE Brakes/MGM Air Brakes
- ASE Steering and Suspension
- MACS 609 Air Conditioning
- Volvo Assembly
- Timken Bearing Certification
- OSHA Certification



CAPSTONE COOPERATIVE EDUCATION

Capstone Cooperative Education is a method of instruction that blends school and workplace learning. At the worksite, students work directly with a supervisor or a mentor over a semester, to observe, assist, and accomplish work tasks that extend and reinforce the classroom learning to the real-world environment. Most positions are paid, allowing the students to earn an income for their future goals.

Students must earn the privilege of participating in the co-op program, meeting minimum requirements such as attendance, grades, and completed competencies. Students will be supervised and required to check in regularly, as well as complete logs with the Workforce Development Coordinator and instructor.

Many students continue their career with local companies at the end of their senior year.



WORK-BASED LEARNING

The Work-Based Learning program is a one-year program offered to seniors only. The course is designed to combine classroom instruction with on-the-job training in a career area of the student's choice. Students will obtain skills in an occupational area that is not taught in high school and will prepare students for new and futuristic careers. This program integrates classroom studies in employability skills and consumer skills with planned, supervised, and practical work experience in a business setting. Students will develop personal initiative, learn to work with others, and recognize the importance of an appropriate attitude and behavior for the occupation.



Free and Reduced College Credits

College Credit Options – Students may take advantage of one of the four ways to earn college credits:

Dual Enrollment/College in the High School Programs – This program allows qualified students to earn credits from the college and the high school at the same time. These college level classes are offered during the school day and are taught by the CareerTech program instructors. College credits count towards a degree program at the college earned or transferred to other colleges. The following programs offer 1 – 16 credits:

College	Reduced Cost	Program in which you can enroll for dual credits
Harrisburg Community College	\$79.50/ Credit	Allied Health, Electrical Occupations, Heating Ventilation and Air Conditioning, Mechatronics
Pennsylvania College of Technology	FREE to all students!	Allied Health (pending), Carpentry, Computer Integrated Manufacturing, Engineering, Information Systems Technology, Landscaping & Horticulture, Marketing/Web Design, Medical Assisting (pending), Welding (pending)





More Free Ways to Earn College Credits

Statewide Articulation Agreements, SOAR – Students occupationally and Academically Ready. SOAR articulates skills and tasks gained at the high school level to course credit earned in a post-secondary college degree, diploma, or certificate program. Qualifying students receive FREE credit from the college upon admission. Most CareerTech programs offer SOAR credits with 44 Pennsylvania, New York, and Maryland colleges.

Direct Articulation Agreements – CareerTech has 16 programs with agreements with the following: Academy for Media Productions, Bucks County Community College, California University of PA, Culinary Institute of America, Hagerstown Community College, Delaware Valley University, Harcum College, Pittsburgh Technical College, Thaddeus Stevens, Triangle Tech, University of Northwestern Ohio, and Wilson College. Students articulate skills and tasks gained at CareerTech to course credit earned in a postsecondary college degree, diploma or certificate program. Qualifying students receive FREE credit from the college upon admission.



CALIFORNIA UNIVERSITY
OF PENNSYLVANIA

NOCTI College Credit Recommendation – By meeting the 70% benchmark on the NOCTI assessment, senior students will receive a college credit recommendation report for FREE college credit waiver consideration. Most CareerTech programs are involved with 34 colleges participating in PA and over 1500 nationwide.

College Credit Summary: www.franklinctc.com/wp-content/uploads/Earning-College-Credits-Web-2022-23-Updated.pdf



STUDENT ORGANIZATIONS



Marketing Students

Participation in the organization affords students the opportunity to develop skills and competencies for marketing careers, build self-esteem, experience leadership and practice community service.



Agriculture Education Students

The FFA mission makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.



Health Occupation Students

HOSA promotes career opportunities in the health care industry and encourages the delivery of compassionate, quality health care to help students meet the needs of the health care community.



Trade and Industrial Students

The SkillsUSA mission is to help students become world-class workers and responsible American citizens. The organization's theme - SkillsUSA: Champions at Work encourages students to be connected, involved and motivated in reaching their career goals.

...CareerTech Prepares for Success

98%

Believe CareerTech was beneficial

98%

Feel CareerTech prepared them for a successful career

95%

Said CareerTech prepared them to make a career choice

89%

Will pursue a career related to their CareerTech education

apply online at www.franklinctc.com



FranklinCTC.com

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