

# WESTERN MONTGOMERY CAREER AND TECHNOLOGY CENTER

*What starts here changes your world!*



# COURSE CATALOG | 2017-18

77 GRATERFORD ROAD, LIMERICK, PA 19468  
610.489.7272 | FAX: 610.489.8778

## OUR MISSION:

The Mission of the Western Montgomery Career and Technology Center is to prepare quality citizens for lifelong productivity in a challenging and changing world by forming innovative partnerships among family, school and community.

In addition to preparation for direct entry into the workforce, WMCTC students are prepared to enroll in college studies. Many two and four year institutions offer programs of study which complement the occupational and technical areas offered at WMCTC.



# TABLE OF CONTENTS

## ABOUT OUR SCHOOL

### CAREER AND TECHNICAL PROGRAMS

1-33

Automotive Technology.....	1
Biomedical Science.....	3
Carpentry.....	5
Collision Repair.....	7
Commercial Art.....	9
Computer Information Systems.....	11
Cosmetology.....	13
Culinary Arts.....	15
Dental Occupations.....	17
Diesel Technology.....	19
Early Childhood Education.....	21
Electrical Occupations.....	23
Health Science Technology.....	25
Heating, Ventilation & Air Conditioning.....	27
Metal Technology.....	29
Protective Services.....	31
Sports Medicine.....	33

### GENERAL INFORMATION

39-42

Academics.....	39
Admissions Policy.....	39
Application Process.....	39
Attendance Policy.....	39
Career Attire Policy.....	40
Career and Technology Education Competency Statement.....	40
Cooperative Education Program.....	41
Grading Policy.....	41
Half-Day CTE Programs.....	41
High Priority Occupations.....	42
Participating School Districts.....	42
Scholarships.....	42
Standards Certificate.....	42
Tech Prep Programs.....	42

## ABOUT OUR SCHOOL



The Western Montgomery Career and Technology Center (WMCTC) is a public Career and Technical Education Center for students in grades 9-12. The WMCTC serves as an extension of the Pottsgrove School District, Spring-Ford School District, and the Upper Perkiomen School District. Programs prepare students for both career and college readiness. All of the WMCTC programs are aligned to the Pennsylvania State Standards, focus on national industry recognized certifications, and are tuition-free for all students from our sending districts.



## PROGRAMS

*What starts here changes your world!*

# AUTOMOTIVE TECHNOLOGY



The Automotive Technology program has been specifically designed to prepare students to continue their training at post-secondary schools, or within industry. The program follows the ASE (Automobile Service Excellence) program of study task list and similarly Pennsylvania's program of study. The program content consists of classroom and lab instruction in: automotive fundamentals, brakes, steering and suspension, electrical/electronic systems, engine performance, PA Safety and Emission Inspection procedures, and engine repair. The program utilize a combination of classroom instruction, computer-based learning and hands-on lab work for an innovative learning process. Student enthusiasm is enhanced by the excitement of participating in various automotive skills contests offering prizes and scholarship money.

## PROGRAM CONCENTRATIONS:

- Safety
- General Maintenance
- Driveline Repair
- Brakes
- Steering Suspension
- Electrical Electronic Systems
- Engine Electrical
- Minor Fabrication

## CAREER OPTIONS:

- Automotive Dealer/Franchise Technician
- Automotive Independent Technician
- Automotive Parts Counter Person
- Automotive Service Advisor

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Specialty Technician | \$86,287
- Dealership/Shop Foreman | \$62,280
- Line Technician | \$43,000
- Tire or Lube Technician | \$ 24,480

## CERTIFICATIONS:

- Pennsylvania State Inspection
- Pennsylvania Enhanced Emissions
- SP2 Safety Certification
- ASE Student Certification
- Valvoline Certification
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Northampton Community College
- Pennsylvania College of Technology
- Delaware County Community College
- Thaddeus Stevens College of Technology

## COMPANIES STUDENTS HAVE WORKED WITH:

- Keyser Miller Ford
- Tri County Toyota
- Tim Uba Automotive
- Firestone
- Jeff Daniels Jeep
- Custers
- Kelly World Class Automotive
- Creamery Tire

# BIOMEDICAL SCIENCE



The Project Lead The Way (PLTW) Biomedical Science program is designed for college-preparatory students who are interested in pursuing a medical or health science career. The rigorous three-course Biomedical Science sequence, Principles of Biomedical Science, Human Body Systems, and Medical Interventions is a nationally recognized curriculum that allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, medical terminology, physiology, genetics, microbiology, and public health. The PLTW curriculum is project-based and will expose students to the design process, research and analysis, teamwork, communication skills, global medicine, and human impacts. The curriculum prepares students to be the next generation of problem solvers, critical thinkers, and innovators for the global economy.

## PROGRAM CONCENTRATIONS:

- Activity, Project, Problem-Based Learning Approach
- Principal of Biomedical Science
- Human Body Systems
- Medical Interventions

## CAREER OPTIONS:

- |                        |                                    |
|------------------------|------------------------------------|
| • Physician            | • Physician Assistant              |
| • Microbiologist       | • Physical Therapist               |
| • Biomedical Scientist | • Occupational Therapist           |
| • Epidemiologist       | • Anesthesiologist                 |
| • Registered Nurse     | • Clinical Laboratory Technologist |
| • Nurse Practitioner   |                                    |

## COOPERATIVE EDUCATION ELIGIBLE:

No

## SALARY RANGES:

- Clinical Laboratory Technologist | \$50,930
- Biomedical Scientist | \$80,530
- Epidemiologist | \$70,820
- Registered Nurse | \$68,450
- Physician Assistant | \$101,480
- Physician/Family Practitioner | \$190,490

## CERTIFICATIONS:

- CPR/First Aid
- Blood-borne Pathogens Certification
- Hazardous Communications
- HIPAA

## COLLEGE CREDIT OPPORTUNITIES:

See [PLTW.org](http://PLTW.org) for more information.

## CLINICAL PARTNERSHIPS OR CONNECTIONS WITH:

- Phoenixville Hospital
- Parkhouse

# CARPENTRY



The Carpentry Program is an instructional program that prepares individuals to apply technical knowledge and skills to lay out, fabricate, erect, install and repair structures and fixtures using hand and power tools. This Program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. The Program is designed to provide students with a combination of classroom theory and hands-on building experience in residential, commercial, and industrial construction trades. The Program consists of a list of PDE required tasks and additional local or value added tasks.

## PROGRAM CONCENTRATIONS:

- Blueprint Reading
- Ability to use Hand & Power Woodworking Tools
- Residential & Commercial Construction Framing
- Interior Finishes (Drywall, Trim, Drop Ceilings, etc.)
- Roofing Installations
- Exterior Finishes (Siding)

## CAREER OPTIONS:

- Carpenter
- Carpentry Assistant
- Carpentry Apprentice
- Maintenance Carpenter
- Finish Carpenter
- House Repairer
- Door Installer
- Cabinet & Trim Installer
- Lay-out Worker
- Framer
- Assembler
- Woodworker

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

Hourly rates vary between \$11.96 - \$28.78 as an Entry Level Apprenticeship

## CERTIFICATIONS:

- SP2 Safety Certification
- OSHA 10 Card
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Pennsylvania College of Technology
- Thaddeus Stevens College of Technology
- Delaware County Community College

## COMPANIES STUDENTS HAVE WORKED WITH:

- R&M Construction
- Dillworth Custom Designs
- Coventry Mall
- J.O.B. Contracting

# COLLISION REPAIR



The Collision Repair program is designed for students interested in pursuing employment within the Collision Repair industry. Students have the opportunity to gain entry level skills required for employment. These skills are acquired through classroom presentations, hands-on guided practice in the shop and computer based learning modules.

## PROGRAM CONCENTRATIONS:

- Safety
- Vehicle construction
- Panel replacement and alignment
- Corrosion protection
- Welding and cutting
- Refinishing
- Masking
- Detailing
- Surface prep
- Estimating
- Plastic repair
- Metal straightening
- Movable and fixed glass replacement

## CAREER OPTIONS:

- Body Technician
- Refinisher
- Detailer
- Estimator / Appraiser
- Glass Installer
- Paint-less Dent Technician
- Owner

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

Average income for Experienced Technicians ranges from \$53,169 - \$62,508

## CERTIFICATIONS:

- I-CAR
- ASE Student Certification
- SP2 Safety Certification
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Pennsylvania College of Technology
- Thaddeus Stevens College of Technology

## COMPANIES STUDENTS HAVE WORKED WITH:

- Dickenson Fleet Services
- Mercer Collision Center
- Rowland Auto Body
- Glass & Sons Collision

# COMMERCIAL ART



The Commercial Art Program spans a number of areas related to visual communications. Students prepare layout and design artwork for magazines, newspapers, books, posters, flyers, and packaging. While learning about these areas of study, students compile a portfolio to show potential employers or prepare for college entrance interviews. Academic skills utilized during this course are reading, writing, and basic math. There is heavy emphasis placed on thinking/problem solving design, and creativity. Students will use hands-on drawing skills throughout this course, as well as digital computer skills, learning many different areas of art and design.

## PROGRAM CONCENTRATIONS:

- Drawing
- Illustration
- Typography
- Color Theory
- Digital Imaging
- Photography
- Adobe Software
- Mac Based Platform
- Printing
- Creative Thinking

## CAREER OPTIONS:

- Graphic Designer
- Illustrator
- Animator
- Art Director
- Web Designer
- Photographer

## COOPERATIVE EDUCATION ELIGIBLE:

Yes



## SALARY RANGES:

- Graphic Designer | \$52,290
- Illustrator | \$57,410
- Photographer | \$42,640
- Animator | \$72,200
- Art Director | \$101,170

## CERTIFICATIONS:

- Adobe Certifications Ready
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Pennsylvania College of Technology

## COMPANIES STUDENTS HAVE WORKED WITH:

- Unlimited Graphics
- Kimberton Hunt Club
- Petaccio's Driving School



# COMPUTER INFORMATION SYSTEMS



The Computer Systems Networking program is an instructional program that focuses on the design, implementation and management of linked systems of computers, peripherals and associated software and prepares individuals with the technical skills required to support networks and network users. This Program includes instruction in LAN/WAN technologies and standards: system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization. The Program consists of a list of PDE required tasks and additional local or value added tasks.

## PROGRAM CONCENTRATIONS:

- PC Repair
- PC Upgrades
- Operating Systems
- Network Design
- Local Area Network & Wide Area Network Communications
- Network Cable Installation
- Wireless Access Point Installation

## CAREER OPTIONS:

- Network Administrator
- Network Specialist
- Network Technician
- Computer User Support Specialist
- Help Desk Analyst
- Client Services Analyst
- Computer Operator

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Computer Support Specialist | \$51,470
- Network & Computer Systems Admin | \$77,810

## CERTIFICATIONS:

- CompTIA A+ Ready
- CompTIA Security + Ready
- CompTIA Networking+ Ready
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Montgomery County Community College
- Bucks County Community College
- Reading Area Community College
- Pierce College
- Delaware County Community College
- Thaddeus Stevens College of Technology

## COMPANIES STUDENTS HAVE WORKED WITH:

- KPIInterface

# COSMETOLOGY



The Cosmetology program is designed to prepare students for the state's professional licensing examination for Cosmetologists, and entry-level employment in the beauty profession. In this three year program, students are provided the opportunity to earn 1250 hours of state required instruction and develop skills in all aspects of Cosmetology including: sculpting, styling, perming, hair color, skin care, chemical hair straightening, nails, and most importantly, people skills. It is necessary for students to keep their work area and equipment organized and well maintained. Students should also possess a sense of form, artistry, and creativity. Hands on experience is obtained several days a week in The Salon. Upon completion of 900 hours, students are eligible and encouraged to take the state licensing exam. Students who pass the state board exam and successfully complete 1250 hours will qualify for PA state licensure.

## PROGRAM CONCENTRATIONS:

- Hair Cutting and Styling
- Hair Coloring
- Chemical Services
- Nail and Skin Care
- Salon Operations
- Customer Relations
- Physical Sciences

## CAREER OPTIONS:

- Hairstylist/Cosmetologist
- Salon Owner
- Color Specialist
- Nail Technician
- Esthetician/Make-up Artist
- Platform Artist/ On-stage Educator
- Cosmetology Instructor
- Certified Trichologist
- Hair Replacement Specialist

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Cosmetologist/Hairstylist | \$16,300 - \$53,500+
- Salon Owner | \$33,000 - \$131,000+
- Esthetician/Make-up Artist | \$22,000 - \$136,000+
- Cosmetology Instructor | \$33,000 - \$59,000

## CERTIFICATIONS:

- SP2 Cosmetology
- Pennsylvania State Board Cosmetology License
- Pennsylvania Skills Certification (NOCTI)

*\*Application for state licensure requires a criminal background check.*

## COLLEGE CREDIT OPPORTUNITIES:

*We are currently working toward college credit opportunities for this program.*

## COMPANIES STUDENTS HAVE WORKED WITH:

- Great Clips
- Super Cuts
- Lords & Ladies Salon and Spa

# CULINARY ARTS



The Culinary Arts Program prepares students for a wide variety of entry level positions in the Culinary Arts industry. The program introduces students to the necessary culinary and basic management skills that are critical in today's hospitality industry.

## PROGRAM CONCENTRATIONS:

- Knife skills
- Mise en place
- Sanitation and Food Safety
- Equipment Identification
- Stocks and Soups
- Nutrition
- Garde manger
- Fish and Shellfish
- Starches
- Vegetables
- Meat and Poultry Identification
- Grilling and Barbecue
- Baking
- Restaurant Management
- Dining Room Hospitality

## CAREER OPTIONS:

- Line Cook
- Prep Cook
- Chef
- Sous Chef
- Caterer
- Baking & Pastry Arts
- Food Stylist
- Butcher
- Food Salesman
- Server/food runner/host or hostess
- Food Truck Owner
- Restaurant owner/manager

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Executive Chef | \$63,125
- Sous Chef | \$34,176
- Pastry Chef | \$37,190

## CERTIFICATIONS:

- ServSafe
- CPR
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Montgomery County Community College
- Delaware County Community College
- Pennsylvania College of Technology
- Walnut Hill (Restaurant School)
- Culinary Institute of America

## COMPANIES STUDENTS HAVE WORKED WITH:

- Wegman's
- Chick-fil-a
- Craft Ale House
- DaVinci's Restaurant

# DENTAL OCCUPATIONS



The Dental Occupations program prepares students for entry level employment as a dental assistant and a strong foundation for continuing to post-secondary education. This program incorporates lectures, demonstrations, and hands-on experience in a variety of dental related subjects. The students will develop the knowledge and skills necessary to provide safe practices by following OSHA standards. Course work will include: infection control, office procedures, radiology, operative dentistry, dental materials, and dental laboratory procedures. Upon completion of this program, the students will be well prepared for a career in the dental field.

## PROGRAM CONCENTRATIONS:

- Safety
- Dental Radiology
- Restorative Procedures
- Oral Anatomy
- Dental Impressions

## CAREER OPTIONS:

- Dental Assistant
- Dental Hygienist
- Dentist
- Circulating Assistant
- Dental Assistant Instructor
- Certified Laboratory Technician
- Expanded Functions Dental Auxiliary

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Dental Assistant | \$36,940
- Dental Hygienist | \$72,910
- Dentist | \$153,900
- Dental Laboratory Technician | \$37,680
- Dental Assisting Instructor | \$50,660
- Expanded Functions Dental Assistant | \$53,060

## CERTIFICATIONS:

- CPR/First Aid
- Dental Radiology
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Harcum College
- Manor College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Dr. Eric Hans, DMD
- Community Medical & Dental Center

# DIESEL TECHNOLOGY



The Diesel Technology program offers training for employment as an entry level diesel technician or a strong foundation for continuing into post-secondary education. Classroom instruction is reinforced with hands-on experience working on medium/heavy duty truck systems and engines. Coursework includes: instruction in brake systems, steering and suspension systems, engines, fuel systems, coolant systems, electrical systems, and drive-trains. Students will also utilize math and writing skills throughout coursework.

## PROGRAM CONCENTRATIONS:

- Orientation and Safety
- Tools and Fasteners/Hardware
- Suspension and Steering Systems
- Preventative Maintenance
- Diesel Engines
- Air Intake & Exhaust Systems
- Cooling Systems
- Electrical/Electronic Systems
- Drive Line

## CAREER OPTIONS:

- Diesel Technician
- Heavy Equipment Maintenance
- Fleet Maintenance
- Dealership/Distributorship Technician

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Diesel Technician | \$45,170
- Heavy Equipment Maintenance | \$49,370
- Automotive Specialty Technician | \$38,470

## CERTIFICATIONS:

- SP2 Safety Certification
- PA State Inspection
- PA Enhanced Emissions
- Bendix Brake Training
- Meritor Bullpen
- Cummins Quickserve Online Training
- ASE Student Certification

## COLLEGE CREDIT OPPORTUNITIES:

- Johnson College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Custer's Garage
- Young's Tire & Auto
- Venezia Trucking
- Creamery Tire

# EARLY CHILDHOOD EDUCATION



The Early Childhood Education program offers training for employment in the Early Childhood profession or a strong foundation for continuing into post secondary education. This “teacher training” course emphasis of the curriculum is the development of the knowledge and skills necessary to provide safe, healthy, positive, developmentally appropriate, high quality care for young children. Classroom instruction is reinforced with hands-on experience teaching toddler and preschool-age children who are enrolled in the WMCTC Buckaroo Preschool.

## PROGRAM CONCENTRATIONS:

- Planning a safe and healthy learning environment
- Managing effective programs
- Maintaining a commitment to professionalism
- Observing and recording children’s behavior
- Understanding principles of child development and learning

## CAREER OPTIONS:

- Kindergarten Teachers (Except Special Ed.)
- Elementary School Teachers (Except Special Ed.)
- Teacher Assistants
- Childcare Workers
- Nannies
- Recreation Workers

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Childcare Provider & Assistant | \$18,510-\$28,790
- Kindergarten Teacher (Except Special Ed.) | \$30,920-\$79,270

## CERTIFICATIONS:

- Pediatric CPR and First Aid
- CDA Ready
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Harcum College
- Montgomery County Community College
- Reading Area Community College
- Pennsylvania College of Technology
- Manor College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Bright Beginnings
- Kiddie Academy (Royersford)
- Goddard
- Wee Care
- Magic Memories
- Red Hill Christian School

# ELECTRICAL OCCUPATIONS



Electrical Occupations has been designed to provide students with entry level skills and knowledge to directly enter the workforce or pursue further education. The program incorporates a combination of theory lessons and practical experiences that provides instruction in: electrical theory, National Electrical Code, residential, commercial, and industrial wiring techniques, telecommunications, security, fire alarm, electrical maintenance. The importance of safety, quality, productivity, and teamwork is also emphasized in this program. WMCTC provides the opportunity for students to participate in the student built house project. Graduates may enter apprenticeship program to be trained as a highly paid journeyman electrician, or lineman. Electricians install, connect, test, and maintain electrical power systems for residential, commercial, and industrial buildings. The electrical occupations student should have good mechanical aptitude, manual dexterity, eye-hand coordination, able to distinguish between colors, mathematics fundamentals, and reading ability.

## PROGRAM CONCENTRATIONS:

- Residential Wiring
- Commercial Wiring
- Light Industrial Wiring
- Special Systems Wiring Skills including Communications

## CAREER OPTIONS:

- Electrician or related employment
- Electrical Systems Technician
- Electrical Engineer

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Electrician | \$31,800 - \$90,420

## CERTIFICATIONS:

- Various SP2 Certifications
- American Ladder Institute Certifications
- OSHA 10 Hour Certification
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Harrisburg Area Community College
- Orleans Technical Institute
- Rosedale Technical College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Response Electric
- GR Electric
- Gillespie Electric

# HEALTH SCIENCE TECHNOLOGY



The Health Science Technology Program consists of three components: Introduction to Health Care and Careers, Nursing Assistant Preparation (NA) and Medical Assistant (MA). This program is a demanding instructional program geared toward the student pursuing a career in the medical field. Students have the opportunity to gain entry level skills required for employment in the Health Care Field. This program provides a combination of classroom theory and hands-on health care experience working with patients in skilled nursing facilities, hospital volunteering and community day care participation.

## PROGRAM CONCENTRATIONS:

- Anatomy & Physiology
- Nurse Aide Training Prep
- Home Care Concentration
- Medical Assisting
- Medical Terminology

## CAREER OPTIONS:

- Medical & Clinical Lab Technician
- Radiologic Technologist
- Respiratory Therapist
- Pharmaceutical Technician
- Physical Therapist
- Occupational Therapist
- Certified Nursing Assistant
- Registered Nurse
- Social Worker

## COOPERATIVE EDUCATION ELIGIBLE:

Yes



## SALARY RANGES:

- Registered Nurse | \$68,450
- Medical & Clinical Lab Technologists | \$47,820
- Medical & Clinical Lab Technicians | \$34,160
- Radiologic Technologists | \$55,910
- Respiratory Therapists | \$55,870
- Pharmacists | \$115,000
- Physical Therapists | \$84,500

## CERTIFICATIONS:

- CPR/First Aid
- Personal Care Attendant
- Interviewing Certification
- Hazardous Communications
- Blood Borne Pathogens Certification
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Harcum College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Chestnut Knoll Home Services
- Parkhouse Adult Day Care Programs
- Pottstown Manor Care



# HEATING VENTILATION & AIR CONDITIONING



This program provides knowledge and skills training in: HVAC safety, Electrical controls for heating and air conditioning equipment. The refrigeration process as it applies to air conditioning, gas and oil heating systems, air distribution system installation, using metal and duct board materials, the installation, servicing, and troubleshooting of air conditioners, heat pumps, hydroponic and warm air heating systems. The student will also learn pipe fitting, soldering, and brazing of the different types of piping materials. All basic hand tools, power tools, and HVAC related tools will be used on a regular basis to introduce the student on the proper usage of each tool. The combination of lab practice and theory prepares students for employment and advancement in today's Heating, Ventilation and Air Conditioning (HVAC) industry. Students entering this program should have a basic mechanical aptitude, be able to move heavy objects, be self-motivated and a self-starter. This program is HVAC Excellence accredited.

## PROGRAM CONCENTRATIONS:

- Safety
- HVAC Electrical
- Hand, Power & Refrigeration Tools
- Piping Practices (Copper, Iron Pipe, PVC, PEX)
- Cooling (AC Mini Splits & Split Units)
- Heating (Oil & Gas Furnaces & Boilers)
- Heat Pumps

## CAREER OPTIONS:

- HVAC Installer
- HVAC Mechanic
- HVAC Service Technician

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Heating & Air Conditioning Mechanics & Installers | \$45,000
- Refrigeration Mechanics & Installers | \$45,000
- Energy Engineering Technician | \$49,000

## CERTIFICATIONS:

- OSHA 10 Hour Safety Certification
- HVAC Excellence
  - HVAC Electrical
  - Electric Heat
  - Gas Heat
  - Oil Heat
  - Air Conditioning
  - Heat Pump
- EPA 608 Safety
- R410A Safety
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Pennsylvania College of Technology
- Thaddeus Stevens College
- Delaware County Community College
- Northampton Community College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Longacre HVAC
- Arctic Desert
- Quality Degree Inc.
- Moyer HVAC
- Wallace Electric

# METAL TECHNOLOGY



The Metal Technology Program is designed to prepare students interested in pursuing a career path and/or post-secondary training opportunities in various metalworking occupations. Instruction includes training on the set-up and safe operation of full size industrial machine tools, layout, metal fabricating, assembling of metal products and structures, precision measurement, characteristics of metals, and welding and cutting processes. Additionally, students enrolled in this program will learn the principles of setting-up, programming, and operating Computer Numerically Controlled (CNC) machine tools. Instruction is also provided in the use of hand and portable power tools, making computations related to work dimensions, the physical properties of materials, and other related instruction and skills associated with metalworking occupations.

## PROGRAM CONCENTRATIONS:

- Hand & Power / Manual Machine Tools
- Computer Numerical Control (CNC)
- Precision & Semi-Precision Measuring Tools
- Welding Processes
- Arc Welding
- Fabrication & Layout
- Flame Cutting
- Welding Electrodes
- Interpret Industrial Prints & Welding Symbols
- Basic Metallurgy

## CAREER OPTIONS:

- Machinist
- CNC Machinist
- CNC Operator
- CNC Programmer
- Tool & Die Maker
- Sheet-metal Worker
- Welder, Cutter, Fitter
- Pipe-fitter, Steamfitter

## COOPERATIVE EDUCATION ELIGIBLE:

Yes



## SALARY RANGES:

- Machinist | \$46,800
- CNC Programmer | \$50,585
- CNC Operator | \$37,876
- Tool & Die Maker | \$51,064
- Sheet Metal Worker | \$46,945
- Welder, Cutter, Fitter | \$39,395
- Pipe-fitter, Steamfitter | \$51,459

## CERTIFICATIONS:

- National Institute for Metalworking Skills (NIMS):
  - Measurement, Materials & Safety
  - Job Planning, Benchwork & Layout
  - Manual Milling Skills I
  - Turning Operations
  - Grinding Skills I
  - Drill Press Skills I
- CNC Milling: Programming Setup & Operations
- CNC Turning: Operations
- Career Safe: General Industry Safety

## COLLEGE CREDIT OPPORTUNITIES:

*We are currently working toward college credit opportunities for this program.*

## COMPANIES STUDENTS HAVE WORKED WITH:

- Pennsylvania Inset Company
- Contrast Metalworks
- MacKissic Inc

# PROTECTIVE SERVICES



An instructional program that prepares individuals to apply technical knowledge and skills required to perform entry-level duties in law enforcement, firefighting, EMT and other safety services. This program stresses the techniques, methods and procedures specific to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, science and physics, students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.

## PROGRAM CONCENTRATIONS:

- High Degree of Military Bearing and Decorum
- Physical Development
- Self-Confidence
- Ability to Work as a T.E.A.M.  
(Together, Everyone, Accomplishes More)
- Communication Skills

## CAREER OPTIONS:

- |                          |                            |
|--------------------------|----------------------------|
| • Police Officer         | • Police, Fire,            |
| • Correctional Officer   | Ambulance Dispatchers      |
| • First Line Supervisors | • Protection Engineer      |
| • Security Guard         | • Loss Prevention Officers |
| • Records Officer        | • Firefighter              |
| • Security Officers      | • EMT                      |
| • Security Consultants   |                            |

## COOPERATIVE EDUCATION ELIGIBLE:

Yes

## SALARY RANGES:

- Police Officer | \$55,000
- Correctional Officer | \$40,000
- Records Officer | \$40,000
- Security Officers | \$35,000
- Security Consultants | \$25,000
- Loss Prevention Officers | \$28,000
- EMT | \$38,000
- Firefighter | Volunteer

## CERTIFICATIONS:

- Handcuffing (TTH)
- Defensive Tactics (MDTS)
- Firearms Safety/Basic Marksmanship Skills (NRA/PA State Police)
- Basic Expandable Baton (MEB)
- Advance Expandable Baton (MEB)
- Spontaneous Knife Defense (PPCT)
- Pepper Spray (OCAT)
- Taser (Taser International)
- Domestic/International Terrorism (PPCD)
- CPR/AED (American Red Cross)
- Pennsylvania Skills Certification (NOCTI)

## COLLEGE CREDIT OPPORTUNITIES:

- Manor College
- Harcum College

## COMPANIES STUDENTS HAVE WORKED WITH:

- Parkhouse Geriatric Center
- Internship Echelon Executive Protection
- Internship United States Marine Corps

# SPORTS MEDICINE



The Sports Therapy & Exercise Management program is designed to prepare students for a number of technical fields related to kinesiology. Instruction includes theory and applications related to: strength training and high intensity training, weight management, nutrition, resistance training, exercise programming, exercise physiology, mental health and wellness, anatomy and physiology, pathophysiology, athletic training, injury recognition and management, rehabilitation and restorative care, and medical terminology.

## PROGRAM CONCENTRATIONS:

- Anatomy and Physiology
- First Aid and CPR
- Evaluation and Assessment of Injuries
- Taping and Bracing
- Therapeutic Exercise and Restorative Care
- Nutrition and Weight Management
- Strength and Conditioning
- Medical Terminology and Documentation
- Exercise Physiology
- Biomechanics

## CAREER OPTIONS:

- Athletic Trainer
- Personal Trainer
- Physical Therapist
- Physical Therapist Assistant
- Occupational Therapist
- Nutritionist

## COOPERATIVE EDUCATION ELIGIBLE:

Yes



## SALARY RANGES:

- Athletic Trainer | \$45,630
- Personal Trainer | \$38,160
- Physical Therapist | \$85,400
- Physical Therapist Assistant | \$45,290
- Occupational Therapist | \$81,910
- Nutritionist | \$58,920

## CERTIFICATIONS:

- American Heart Association Heartsaver CPR & AED
- American Red Cross First Aid
- Personal Fitness Trainer Ready

## COLLEGE CREDIT OPPORTUNITIES:

*We are currently working toward college credit opportunities for this program.*

## COMPANIES STUDENTS HAVE WORKED WITH:

- Mishock PT
- Spring Valley YMCA
- Phoenix Rehab
- Good Shepherd Rehab
- ATI Rehab
- MAXOUT Performance
- Rothman Orthopedic
- Upper Perk SM & PT
- UP YMCA

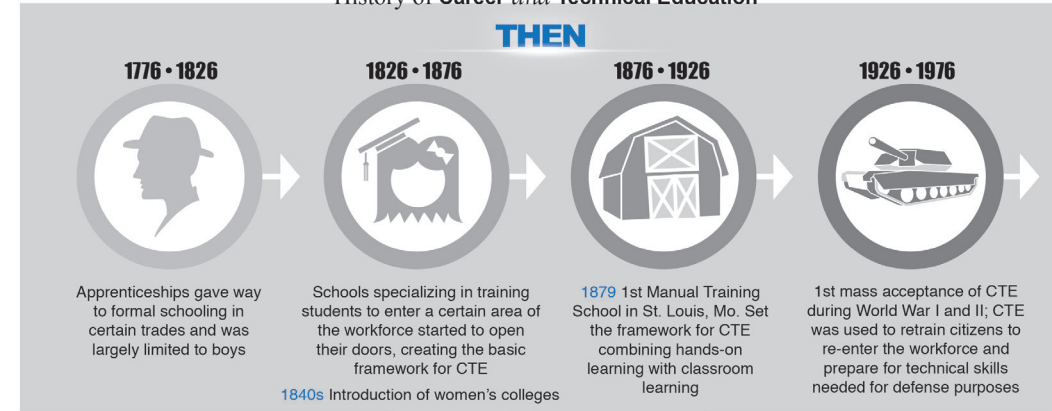
# STUDENT ACTIVITIES

At WMCTC, students may participate in a variety of exciting activities and clubs, including:

- ATC Automotive Competition
- CCAP - Careers Through Culinary Arts Program
- Chick-fil-A Leadership Academy
- CIS TAC Team
- FCCLA - Family, Career and Community Leaders of America
- Greater Philadelphia Auto Dealers Association Competition
- HOSA - Health Science Technology Education
- Northampton Community College Automotive Competition
- NTHS - National Technical Honors Society
- SkillsUSA
- UTI Automotive Competition



## History of Career and Technical Education



**NOW**  
WESTERN MONTGOMERY  
CAREER & TECHNOLOGY CENTER

**ACADEMIC SKILLS**  
to build the foundation to continue with college level studies  
Academic integration of Math and English into the WMCTC career and technical education programs make the educational content more engaging and relevant for students

**TECHNICAL SKILLS**  
to prepare for entry into a skilled career.  
**NOCTI**  
On average, 96% of WMCTC students from 2016-2017 earned NOCTI certification.  
NOCTI: a series of occupationally-focused tests that offer students the opportunity to earn a certificate or certification in a technical area

**POST-SECONDARY OPPORTUNITIES**  
A majority of the CTE programs at WMCTC are identified as High Priority Occupations  
**DOAR**  
Students Occupationally and Academically Ready

**EMPLOYABILITY SKILLS**  
Career & Technical Education maximizes student opportunities by developing their:  
Within 6 months of high school graduation, about half of WMCTC graduates are employed and/or enrolled at a post-secondary institution.

**LIFE & CAREER SKILLS**

- Flexibility
- Adaptability
- Initiative
- Self-direction
- Social
- Cross-cultural
- Productivity
- Accountability
- Leadership
- Responsibility

**LEARNING & INNOVATION SKILLS**

- Critical thinking
- Problem solving
- Creativity
- Innovation
- Communication
- Collaboration
- Entrepreneurship

**18 DIFFERENT PROGRAMS**

- Automotive Technology
- Biomedical Sciences
- Carpentry
- Collision Repair
- Commercial Art
- Computer Information
- Cosmetology
- Culinary Arts
- Dental Occupations
- Diesel Technology
- Early Childhood Education
- Electrical Occupations
- Environmental Design
- Health Science Technology
- HVAC
- Metal Technology
- Protective Services
- Sports Medicine

**HIGH SKILL | HIGH WAGE | HIGH DEMAND**

## AT A GLANCE:

COST	Free <i>(No Tuition or Fees!)</i>
REQUIREMENTS	<ul style="list-style-type: none"> <li>Enroll in a SOAR-approved WMCTC Program</li> <li>Schedule college-prep academic classes at your high school</li> <li>Maintain a 2.5 GPA in WMCTC Program</li> <li>Achieve your High School Diploma</li> <li>Earn a Competent or Advanced score on NOCTI exams</li> <li>Complete 100% of technical program competencies list at industry proficient level</li> </ul>

The Pennsylvania Department of Education (PDE) developed and supports the SOAR Program (Students Occupationally and Academically Ready), which helps career and technical education programs lead seamlessly to post-secondary education.

The mission of SOAR is to prepare students for college and careers in an increasingly diverse, high-performing workforce. PDE grants SOAR Programs of Study (POS) approval based in part on the adoption of statewide, industry-aligned competencies and the PA academic standards, instructor certifications and status as High Priority Occupations as defined by the Pennsylvania Department of Labor and Industry. SOAR creates a transfer credit relationship between WMCTC and 42 Pennsylvania colleges (and SUNY). Students who achieve SOAR's challenging academic and technical criteria (listed to the left) by the time they graduate from WMCTC can earn free credits to transfer to college, saving close to one full, free semester of college!

*Note: Since requirements include test scores and GPA's, students will not know for certain if they qualify for SOAR credits until May of their senior year. Therefore, SOAR credits should be considered a bonus credit that you may earn if you work hard and achieve, not a guaranteed credit that every student will receive.*

### PERFECT FOR:

- The academically strong, motivated student.
- The student who knows they want to go to college locally or in-state (in Pennsylvania), even if (s)he hasn't chosen a school yet.

## SOAR-QUALIFIED WMCTC PROGRAMS:

PROGRAM	CIP CODE
Automotive Technology	47.0604
Carpentry	46.0201
Collision Repair	47.0603
Commercial Art	50.0402
Computer Information Systems	11.0901
Culinary Arts	12.0508
Dental Occupations	51.0601
Diesel Technology	47.0613
Early Childhood Education	19.0708
Electrical Occupations	46.0399
Health Science Technology	51.0899
HVAC	47.0201
Protective Services	43.9999

#### Why do I need this code?

The SOAR website, [CollegeTransfer.net](http://CollegeTransfer.net), will display all credits available to you, but lists all credits by CIP (pronounced "sip") code.

# GENERAL WMCTC INFORMATION

## Academics

All academic courses with the exception of physical education are scheduled at the sending schools. Please speak to your sending district counselor regarding course selection in combination with WMCTC enrollment.

WMCTC offers an array of support services to help ensure students can pursue employment and continued education or training as a goal after high school. A team of special needs support professionals and paraprofessionals are active throughout the building and are available to provide assistance to students in meeting the requirements of their Program of Study. The team may also develop and implement individual plans to achieve academic success, assist helping a student through emotional and social difficulties, and establish a plan to ease the transition into post-secondary paths such as starting a career, college, or military service. Additionally, they act as important liaison between WMCTC and the students' sending school personnel, thus ensuring students have consistent help and encouragement throughout the school year. Though their main focus is supporting students with special needs, all students can request assistance from this team.

## Admissions Policy

Admission to the Western Montgomery Career & Technology Center is based on the following criteria: Academic Achievement, Attendance Record, Student Conduct, \*Teacher Recommendations, \*Student Essay.

**\*These items are optional, but highly recommended.**

## Application Process

Online applications may be completed by visiting [www.westerncenter.org](http://www.westerncenter.org). The application window is on October 1st each year. The deadline for applications is March 15th. The Bio Medical course requires an interview prior to being accepted into the program.

## Attendance Policy

Students must maintain an excellent attendance record in order to develop the skills, knowledge, attitude and behavior necessary to succeed in high school, post-secondary education and employment. Class attendance is a student's obligation and responsibility. Students who abuse the attendance policy may not receive credit for the course of study in which they are enrolled, and may also be denied the opportunity to continue in their career and technical education program the following school year. Failure to attend classes, in any course, may result in failure for the marking period/semester/school year. Excessive tardiness is unacceptable; consequently, students grades may be affected by excessive tardiness.

## Career Attire Policy

Students will be required to wear their program's uniform every day. Uniforms must be purchased online. Please visit [store.apexadv.com/wmctc/default.aspx](http://store.apexadv.com/wmctc/default.aspx) for more information.

## Career and Technical Education Competency Statement

The National Occupational Competency Testing Institute (NOCTI) student assessments are job readiness exams that measure the skills of an entry-level worker or an individual who has completed coursework in a secondary or post-secondary career and technical program. NOCTI assessments allow student to demonstrate their knowledge, skills and abilities within their chosen occupational program. Assessment reports provide valuable data from program improvement and accountability requirements. Student assessments are developed using business and industry standards and most include multiple choice and performance components.

NOCTI assessments are designed to measure a student's knowledge of basic processes, including the identification and use of terminology and tools. Educators and administrators use the tests to:

- Measure curriculum effectiveness
- Link the world of education with the world of work
- Improve instructional methods
- Enhance the transition between school and work

Students are expected to demonstrate their knowledge at the competent or advanced level. Those who demonstrate their knowledge at the advanced level receive a Pennsylvania Skills Certification, which recognizes career and technical education students who have achieved high skills in their chosen technical area. All students who have successfully completed 50% of their program hours are required to take the NOCTI exam during their graduation year.

\*For Metal Technology the National Institute for Metalworking Skills (NIMS) is the assessment utilized as the culminating exam to provide certification.



## Cooperative Education Program (Co-op)

Cooperative Education is a structured method of instruction combining school based classroom learning with productive work-based learning in an occupation matching the student-learner's academic and career objective. Acceptance into the program is an honor and privilege. Therefore, students will be considered for this program upon recommendation.

Level 2 juniors in 4th quarter, Level 2 seniors in 2nd semester and Level 3 seniors are eligible for the Cooperative Education Program based on their grades, attendance, and technical instructors' and principal recommendations. **A student who has five (5) or more unexcused absences from school or more than ten (10) days excused absences from school may not be eligible for the Cooperative Education Program.**

*The only exception will be for students who have had an extended illness that has been documented by a physician. In the event of extenuating circumstances, the school administration will consider Cooperative Education placement for the students in this category.*

## Grading Policy

Students will be graded as follows:

Letter	Number
A	93 - 100
B	85 - 92
C	77 - 84
D	70 - 76
F	0 - 69

## Half-Day Career and Technical Education Programs

The Western Montgomery Career & Technology Center offers students a half-day program, whereby, they receive their career and technical education at WMCTC and their academic instruction at their sending district's high school. Graduates receive their high school diploma from their sending school district and a standards certificate from the Western Montgomery Career & Technology Center.

## High-Priority Occupations (PA Department of Labor)

High-Priority Occupations are designated by the Department of Labor because they are in a high demand and require advance technical skills. As a result, graduates of these programs are likely to secure a job faster and earn higher-than-average wages. High-priority occupations are updated each year.

## Participating School Districts

- Pottsgrove School District
- Spring-Ford School District
- Upper Perkiomen School District

## Scholarships

The Western Montgomery Career & Technology Center is proud that students have continually received scholarships from businesses, colleges and universities, community partners, and national organizations.

## Standards Certificate

### Certificate of Completion

Secondary students who have successfully completed at least two years in a career and technical education program, met appropriate attendance requirements, and who have successfully achieved Competent or Advanced on the NOCTI Exam are eligible to receive a "Certificate of Completion" upon graduation. This certificate may be used to secure employment and/or pursue post-secondary education in a career-related field.

\* Students who have earned a Certificate of Completion and have completed 100% of the Task Grid, and 2.5 GPA for their Program of Study will become SOAR eligible for up to 9 credits at participating colleges/universities.

### Certificate of Participation

Secondary students who have completed at least one school year in a career and technical education program are eligible to receive a "Certificate of Participation" upon graduation. This certificate may be used to secure employment and/or pursue post-secondary education in a career-related field.

## Tech Prep Programs

Tech Prep approval reflects a college track academic and technical curriculum that is validated by agreements with post-secondary institutions. Tech Prep students are expected to take college prep academics. WMCTC offers the following approved Tech Prep programs: Cosmetology, Metal Technology and \*Sports Medicine.

\*Will become a Program of Study once approved by the PA Department of Education





## WESTERN MONTGOMERY CAREER AND TECHNOLOGY CENTER

*What starts here changes your world!*

[www.westerncenter.org](http://www.westerncenter.org)

**APPLY TODAY! Contact the WMCTC Admissions team for  
more information at  
[admissions@westerncenter.org](mailto:admissions@westerncenter.org) or 610-489-7272**

Western Montgomery Career and Technology Center, in accordance with Title IX of the Educational Amendments of 1972, will not discriminate in educational programs which it operates, or in admission or enrollment procedures on the basis of race, religion, sex, color, age, national origin, or handicap and provides equal access to the boy scouts and other designated youth groups. The Western Montgomery Career and Technology Center is an equal opportunity employer and educational institution. We assure that procedures and practices are followed to provide equal access to all programs. Any questions concerning the application of Title IX, compliance or complaints may be referred to Donna Wilson, Compliance Officer, at 77 Graterford Road, Limerick, PA 19468 610-489-7272, ext. 203