



Program Guide

2023-2024

The Monroe and Career Technical Institute serves the East Stroudsburg, Pleasant Valley, Pocono Mountain, and Stroudsburg School Districts

See your Guidance Counselor To inquire about enrolling at MCTI

The mission of the Monroe County Career & Technical Institute (MCTI) is to provide “Professional excellence in career and technical training today for a successful tomorrow.” We provide this training and education through a set of courses that we believe prepares students both academically and technically for a career or to pursue postsecondary education.

MCTI offers students 20 Program of Study (POS) and 3 Career Tech Programs. These programs are Pennsylvania Department of Education (PDE) approved programs that articulate the secondary career and technical education to a postsecondary degree, diploma, or certificate programs. These 23 programs align the secondary courses to a postsecondary program to complete a degree or certificate.

PROGRAMS OF STUDY

“Program of Study” is a Pennsylvania Department of Education approved statewide program that:

- Incorporate and align secondary and postsecondary education
- Include academic and CTE content in a coordinated, non-duplicative progression of courses
- Includes the opportunity for secondary students to acquire postsecondary credits
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate of baccalaureate degree
- Identify and address current or emerging occupational opportunities
- Build on career clusters, career pathways, and career academies
- State develops in consultation with local Occupational Advisory Committees (OAC) and standards

How SOAR high school programs are accepted at postsecondary schools:

CollegeTransfer.net – Transfer Center

Aspire | Assess | Articulate



Go to CollegeTransfer.net or scan this QR Code with smart phone to see how SOAR programs are accepted at higher education institutions.



Monroe Career & Technical Institute - 194 Laurel Lake Road, Bartonsville, PA 18321 • (570) 629.2001
www.monroecti.org

CAREER TECH

Career Tech programs combine at least two years of high school education with two years of postsecondary education to prepare students for technical careers in areas such as engineering technology, health and human services, and business/information technology. These articulated programs combine a common core of higher academics in math, science, and communications with a specific field of technical preparation. Career Tech is a college prep program that leads to an associate degree, two-year certificate, or apprenticeship. Career Tech students will be technically and academically prepared to join the workforce or continue their education towards a baccalaureate degree.

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Career & Technical Student Organizations

Monroe Career & Technical Institute offers several co-curricular activities through our Career & Technical Student Organizations. Some organizations are supplemental to the career and technical programs.

American Welding Society – AWS

The American Welding Society (AWS) was formed in 1919 to advance the science, technology and application of welding. Participation in a student chapter can provide valuable experience for career and personal development for members. AWS is recognized as the leading technical organization in the United States devoted to the advancement and interest of welding, joining and cutting processes. The organization includes welders, inspectors, and technicians of all levels as well as thousands of students who will become the workforce of the future.

DECA – An Association of Marketing Students

DECA enhances marketing, management and entrepreneurship education. Students develop skills and competencies for careers, build self-esteem, experience leadership and practice community service. DECA promotes the partnership of education and business. DECA promotes leadership opportunities, competitive events and achievement/recognition activities on the local, state and national levels. Students enrolled in the Hotel, Resort & Tourism and Marketing Programs are eligible to join DECA.

National FFA Organization (Agricultural Education)

FFA is a co-curricular student organization which is an integral part of agriculture education. FFA enhances the education of students preparing or advancing their careers in production agriculture, products processing, agribusiness, renewable natural resources, agricultural mechanics, horticulture and environmental occupations. FFA promotes leadership opportunities, competitive events and achievement/recognition activities on local, state and national levels. Students in both the Floriculture and Horticulture Programs participate in FFA.

Health Occupations Students of America – HOSA

HOSA is a national student organization that provides a unique program of leadership development, motivation and recognition exclusively for secondary, post-secondary, collegiate and adult students enrolled in health occupations education course or instructional programs. HOSA is an integral part of approved health occupation programs. HOSA promotes leadership opportunities, competitive events and achievement/recognition activities on local, state and national levels. Health Occupation students join HOSA.

NAHB – National Association of Home Builders

NAHB is an association whose mission is to enhance the climate for housing and the building industry. The student chapter of NAHB works to provide activities for students to develop professionalism in the construction trades and to introduce students to the construction business. NAHB strives to create an environment in which: All Americans have access to the housing of their choice and the opportunity to realize the American dream of homeownership. Builders have the freedom to operate as entrepreneurs in an open and competitive environment. Housing and those who provide it are recognized as the strength of the nation. The Pocono Builders Association is the sponsor of MCTI NAHB student organization.

National Technical Honor Society – NTHS

NTHS is a non-profit, honor organization for students enrolled in occupational, career and technical programs. The purpose of NTHS is to promote service, leadership, honesty, career development, and skilled workmanship, and to reward student achievement. The NTHS is the benchmark for excellence in workforce education, encouraging students to give their BEST. It also helps students build workplace values that are demanded in today's quality-driven business and industry. Website: www.nths.org

SkillsUSA

SkillsUSA is a co-curricula student organization which is an integral part of trade, industrial, and technical education. SkillsUSA enhances the education of students by preparing or advancing their careers in the service, manufacturing, technical, trade and industrial occupations. SkillsUSA promotes leadership opportunities, competitive events and achievement/recognition activities at the local, district, state and national levels. All career and technical students can participate in SkillsUSA. Website: www.Skillsusa.org

Student Government/Interact

Student Government provides opportunities for active participation in the organization and management of school affairs; to further interest in all school activities; to teach and develop leadership qualities through domestic practices and to cooperate in promoting career and technical education in general, as well as the general welfare of the school.

Interact: A Rotary-sponsored service club for young people in their secondary-school ages, gives an opportunity for students to participate in fun and meaningful service projects. Interact clubs perform at least two projects a year, with one serving the community and the other furthering international understanding. Along the way, Interactors (Interact Club Members) develop their leadership skills and initiative while meeting new friends.

Through the service activities, Interactors learn the importance of:

- Developing leadership skills and personal integrity.
- Demonstrating helpfulness and respect for others.
- Understanding the value of individual responsibility and hard work.
- Advancing international understanding and goodwill.

Membership in the Student Government/Interact requirements:

- Each program session selects one representative and an alternate.
- Each representative and alternate is a bona fide member of a CTSO.
- Each representative (or alternate) attends meetings as called by the advisor.

AEVIDUM

Aavidum is a non-profit organization that empowers youth to shatter the silence surrounding depression, suicide, and other issues facing teens. The word Aavidum, which means "I've got your back," was created by students after a classmate died by suicide. Aavidum inspires schools and communities to adopt cultures of care and advocacy, encouraging all members to have their friends' backs. At Aavidum's core is an educational philosophy that positions Aavidum advisors in roles to challenge student to find their strengths and then to discover opportunities where they can amplify their voices. These experiences empower students to live lives of purpose and substance.

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AUTOMOTIVE COLLISION AND REPAIR

**47.0603 AUTOBODY/COLLISION AND REPAIR TECHNOLOGY/TECHNICIAN
(PDE APPROVED PROGRAM OF STUDY)**

The Automotive Collision Repair Program is an instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Chief Easy Liner Collision Repair System Gas and MIG Welders Paint Mixing System Spray Booth Virtual Spray Painter	Automobile Body and Related Repairers Helpers-Installation, Maintenance and Repair Workers Automotive Specialty Technicians Painters, Transportation Equipment	Mechanical Aptitude Ability to Work Independently and in a Team Communication Skills Trouble Shooting Skills

CAREERS:

Automotive Body and Related Repairers
Automotive Glass Installers and Repairers
Painters, Transportation Equipment

Certifications available to qualified students:

Industry Certification	Provider Name
S/P2 Collision Repair & Refinish Safety	S/P2
S/P2 Safety & Pollution Prevention	S/P2
I-CAR, various levels	I-CAR

AUTOMOTIVE TECHNOLOGY

47.0604 AUTOMOBILE/AUTOMOTIVE MECHANICS TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

Students enrolled in the Automotive Technology Program are prepared to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. This Program includes instruction in the diagnosis and testing, including computer analysis, of malfunctions in and repair of engines, fuel, electrical, cooling and brake systems and drive train and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as cooling systems, drive trains, fuel system components and air conditioning and includes the use of technical repair information and the state inspection procedures. The Program consists of a list of PDE required tasks and additional local or value added tasks.

This Program is certified by the National Automotive Technicians Education Foundation (NATEF) and is designed for students who would like to work in the automotive service industry. Automotive technicians need knowledge of electronics, emission control, electricity, mechanics, and hydraulics.

The need for skilled technicians is rapidly increasing. Expanded use of electronics, new government requirements on safety and pollution control, and more extensive warranties on new vehicles require the work of highly skilled technicians and diagnosticians.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Computer-based Service Information Database Engine Analyzers Lab Scopes Scan Tools Road Force Balancer Machine/Computer Precision Measuring Instrument Pressure Gauges Digital Image – Alignment Machine On Vehicle Brake Lathe Hunter Tire Changer Machine	Automotive Service Technician and Mechanic Automotive Specialty Technician Administrative Service Manager	Trouble Shooting Skills Mechanical Aptitude Ability to Work Independently and in a Team Analytical Skills

CAREERS:

Electronic Equipment Installers and Repairers, Motor Vehicles
Automotive Service Technicians & Mechanics

Certifications available to qualified students:

Industry Certification	Provider Name
Certified Safety Inspector, Cat I	Pennsylvania Department of Transportation
S/P2 Automotive	S/P2
Section 609 Certification for Refrigerant Recycling and Recovery	Mobile Air Conditioning Society Worldwide
Automotive Service Excellence (ASE)	National Automotive Technicians Education Foundation
Battery Starting and Charging System	AC Delco
Electrical State 1 & 2	AC Delco
AYES Certificate	Automotive Youth Educational Systems (AYES)
Motor Oil Certification	Valvoline

BUSINESS AND HOSPITALITY MANAGEMENT

52.1801 SALES, DISTRIBUTION AND MARKETING OPERATIONS, GENERAL (PDE APPROVED PROGRAM OF STUDY)

The Business and Hospitality Management Program focuses on a wide variety of instruction associated with careers in the business and hospitality fields. The program prepares individuals to perform one or more business and hospitality functions such as selling, pricing, promotion, product/service management, distribution, financing, guest services, front office operations, facilities management, resort management and marketing information management. In addition, the instructional program includes varying emphasis on technical knowledge of products and/or services marketed; related communications, economics, technological and computational skills; and abilities and attitudes associated with human relations. The program may also include management functions associated with owning and operating a business. The program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Computers	General and Operations Manager Marketing Manager Sales Manager Advertising and Promotions Manager Supervisor/Manager Retail Sales Worker Customer Service Representative	Excellent Communication Skills Decision Making Skills Problem Solving Skills Computer Skills Pleasant Personality Ability to Work Independently and in a Team

CAREERS:

General & Operations Managers
Advertising & Promotions Managers
Marketing Managers
Sales Managers
First-Line Supervisors of Retail Sales Workers
Retail Salespersons
Advertising Sales Agent
Social Media Specialist
Sales Representative, Other Services
Sales Representatives
Guest Relations
Event Planning
Entertainment and Leisure Services
Food and Beverage Operations

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
A*S*K Certification	A*S*K Institute
Customer Service and Sales	National Retail Federation Foundation
Certified Hospitality and Tourism Management Professional (CHTMP)	American Hotel and Lodging and Educational Institute

CARPENTRY

46.0201 CARPENTRY/CARPENTER (PDE APPROVED PROGRAM OF STUDY)

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.

Specialized Equipment	Related Occupations Employment Opportunities	Personal Qualifications
Band and Table Saws Bench Shapers Drum and Disk Sanders Jig and Trim Saws Molder/Planer Planers and Jointers Nailers Radial Arm Saws Routers with Attachments Specialized Power Hand Tools Woodworking Lathes	Rough Carpenter Carpenter Helper Roofer Drywaller	Patience Endurance Ability to Work Independently and in a Team Mechanical Aptitude Communication Skills

CAREERS:

Supervisors – Construction Trades & Extraction Workers
Carpenters
Helpers--Carpenters

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
PBA Skills Certificate	Pennsylvania Builders Association
Articulated Ladder	American Ladder Institute
Mobile Ladder	American Ladder Institute
Single and Extension Ladder	American Ladder Institute
Step Ladder	American Ladder Institute

COMPUTER INFORMATION SCIENCE

52.1201 MANAGEMENT INFORMATION SYSTEMS AND BUSINESS DATA PROCESSING (PDE APPROVED PROGRAM OF STUDY)

The Computer Information Science Program is an instructional program that prepares individuals to apply technical knowledge and skills to support the design and development of software applications, manage data systems and related mathematical statistics for analysis and forecasting of business data, process and retrieve business information, and prepare and interpret process and data models.

Students will create a relational database, receive instruction in a variety of computer programming languages including writing, testing and debugging code; writing related system user documentation; demonstrating an understanding of core computer concepts to include the internet and the basic functions of business desktop applications; and analyzing common hardware, software and network processes. Students will receive instruction in business ethics and law, economics, office procedures and communications. Students will learn office safety, computer fundamentals, database administration and computer maintenance/troubleshooting.

Specialized Equipment:	Related Occupations/Employment Opportunities:	Personal Qualifications:
Workstations Interactive TV Data Projectors Wireless Access Point Laser Printer Cloud-based database and webservers	Computer & Information Systems Managers Computer Systems Analysts Computer Programmers Database Administrators Computer Network Architects	Problem Solving Trouble Shooting Skills Analytical Skills Communication Skills Mechanical Aptitude

CAREERS:

Computer & Information Systems Managers
Computer Systems Analysts
Computer Programmers
Database Administrators
Computer Network Architects

Certifications available to qualified students:

Industry Certification	Provider Name
Microsoft Certified Professional (MCP)	Microsoft
Microsoft Office Specialist	Microsoft
Microsoft Office Specialist	Certiport
Oracle Certification (path based on product)	Oracle

COMPUTER NETWORKING and SECURITY

11.0901 COMPUTER SYSTEMS NETWORKING AND TELECOMMUNICATIONS (PDE APPROVED PROGRAM OF STUDY)

The Computer Networking and Security 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 network technologies and standards: system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization. Those completing the Program may be employed as a network administrator, network specialist, network technician, webmaster, client services analyst (end user) or network operator. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

The core content of this course is focused on nationally recognized certifications. Upon completion of the Program, students may be eligible to obtain up to 30 advanced standing credits at a post-secondary institution based on their career track.

Specialized Equipment:	Related Occupations/Employment Opportunities:	Personal Qualifications:
Personal Computers Scanners Digital Cameras Data Projectors Servers Routers Firewalls Printers Network Sniffers	Network & Computer Systems Administrator Computer Security Specialist Computer Support Specialist Computer Security	Problem Solving Trouble Shooting Skills Manual Dexterity Analytical Skills Communication Skills Mechanical Aptitude

CAREERS:

Computer & Information Systems Managers
Information Security Analysts
Web Developers
Network & Computer Systems Administrators
Computer Network Architects
Computer Network Support Specialists
Computer Systems Analysts

Certifications available to qualified students:

Industry Certification	Provider Name
A+	Computing Technology Industry Association (Comp TIA)
Network+	Computing Technology Industry Association (Comp TIA)
Security+	Computing Technology Industry Association (Comp TIA)
Cisco Certified Network Associate (CCNA)	Cisco
PC Pro	Test Out
Network Pro	Test Out
Security Pro	Test Out

COSMETOLOGY

12.0401 COSMETOLOGY /COSMETOLOGIST, GENERAL (PDE APPROVED CAREER TECH PROGRAM)

The Cosmetology Program is an instructional program that prepares individuals to apply technical knowledge and skills related to the cosmetology industry in a variety of beauty treatments including the care of the hair, skin, and nails. Instruction includes training in giving shampoos, rinses and scalp treatments; hair styling, setting, cutting, coloring, tinting and lightening; permanent waving; facials; manicuring; and hand and arm massaging. The Program includes instruction in bacteriology, anatomy, hygiene, sanitation, salon management including record keeping and customer relations. Instruction is designed to qualify students for the licensing examination upon successfully completing 1,250 hours of instruction. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Based upon hours of instruction needed, we can only accept new 9th and 10th grade students.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
<p>For participation in the program, students are required to purchase a kit with the items mandated by the State Board of Cosmetology and MCTI.</p> <p>Students are also required to purchase a uniform selected by MCTI.</p>	<p>Manicurist Hairdresser Hairstylist Manager Skin Care Specialist</p>	<p>Ability to Work Independently and in a Team Problem Solving Analytical Skills Creativity Patience Endurance</p>

CAREERS:

Hairdressers, Hairstylists & Cosmetologists
Makeup Artists, Theatrical & Performance
Skincare Specialists

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
Cosmetologist	Pennsylvania Department of State, State Board of Cosmetology

CRIMINAL JUSTICE

43.0107 CRIMINAL JUSTICE/POLICE SCIENCE (PDE APPROVED PROGRAM OF STUDY)

The Criminal Justice Program is an instructional program that prepares individuals to apply technical knowledge and skills that relate to performing entry-level duties as a patrolman, corrections officer, juvenile officer, security officer and probation officer. The course stresses patrol and related duties such as traffic and crowd control, the American legal system, techniques used in the police laboratory and training in emergency and disaster situations. Also stressed is physical development with a strong emphasis on self-defense and the building of self-confidence. Investigatory techniques such as interviewing and evidence gathering, report writing, a study of juvenile law and procedure, the techniques of crime prevention, the criminal process from arrest through conviction and procedural matters affecting law enforcement such as arrest, search and seizure and legal principles developed in information lessons are utilized in supervised simulated situations. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Personal Protective Equipment CPR Mannequin Handcuffs Law Enforcement Gear Belts	Police Patrol Officer Security Officer Correctional Officer Police, Fire and Ambulance Dispatchers Forensic Evidence Technician	Physical Stamina and Strength Weight Lifting Walking Good Hand and Eye Coordination Problem Solving Skills Ability to Work Independently and in a Team Patience Endurance Good Communication Skills

CAREERS:

Bailiffs
Correctional Officers & Jailers
Detectives & Criminal Investigators
Police & Sheriff's Patrol Officers
Private Detectives & Investigators

Certifications available to qualified students:

Industry Certification	Provider Name
BLS Healthcare Provider	American Heart Association
Certificate of Training – Recognition and Identification of Hazardous Materials (HAZMAT)	Pennsylvania State Fire Academy
Certified Protection Officer, CPO	International Foundation for Protection Officers
NIMS IS 100 Series	Emergency Management Institute
NIMS IS 200 Series	Emergency Management Institute
NIMS IS 700 Series	Emergency Management Institute
NIMS IS 800 Series	Emergency Management Institute

CULINARY ARTS

12.0508 INSTITUTIONAL FOOD WORKERS (PDE APPROVED PROGRAM OF STUDY)

The Culinary Arts Program is an instructional program that prepares students for employment related to institutional, commercial or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing and serving of quantity food and food products; nutritive values; use and care of commercial equipment; safety; and sanitation precautions. Instruction of skills is provided to individuals desiring to become employed in all areas of the food service industry at entry level. The Program is certified by the American Culinary Federation. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Fully Gas-operated Kitchen Brazier and Pressure Steamer Ovens – Conventional and Convection Slicer Broiler Deep-fryer	Waiter/Waitress Food Prep Worker Food Service Manager Cook/Short Order Cook Baker Chef/Head Cook	Ability to Work Independently and in a Team Adapt to Situations Work within Time Constraints Endurance

CAREERS:

Chefs & Head Cooks
Supervisors - Food Preparation & Serving Workers
Cooks, Restaurant
Cooks, Short Order
Food Preparation Workers

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
Certified Fundamental Cook (CFC)	American Culinary Federation
ServSafe/Manager Food Safety Certification	National Restaurant Association
ServSafe Food Handler Certification	ServSafe
ServSafe Allergen Certification	ServSafe
ProStart National Certificate of Achievement	Pennsylvania Restaurant & Lodging Association (PRLA)

DIESEL TECHNOLOGY

47.0613 MEDIUM/HEAVY VEHICLE AND TRUCK TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

The Diesel Technology Program is designed to prepare individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. This Program includes instruction in diesel engine mechanics, suspension and steering, brake systems, electrical and electronic systems, preventive maintenance inspections, drive trains, HVAC systems, and auxiliary equipment installation and repair.

The Diesel Technology Program includes safety, theory, and general practice. Diesel technicians must like to work with machines and be able to use both hand and power tools. This Program is certified by the National Automotive Technicians Education Foundation (NATEF). The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Diesel Over-the-road Trucks Diesel Engines Transmissions Braking Systems Drive axles	Bus and Truck Mechanic Diesel Engine Specialist Industrial Machinery Mechanic Automotive Master Mechanic Helpers-Installation Farm Equipment Mechanic	Mechanical and Electronic Abilities Physical Stamina Commercial Driver's License Problem Solving/Trouble Shooting Skills Ability to Work Independently and in a Team

CAREERS:

Bus & Truck Mechanics & Diesel Engine Specialists
Farm Equipment Mechanics & Service Technicians
Mobile Heavy Equipment Mechanics

Certifications available to qualified students:

Industry Certification	Provider Name
Certified Safety Inspector, Cat I	PA Department of Transportation
Heavy Duty	S/P2
S/P2 Automotive	S/P2
S/P2 Safety & Pollution Prevention	S/P2
Section 609 Certification for Refrigerant Recycling and Recovery	National Institute for Automotive Service Excellence
Get Ahead	Daimler Trucks North America

DIVERSIFIED OCCUPATIONS

32.0105 JOB-SEEKING/CHANGING SKILLS (Diversified Occupations) (PDE APPROVED CAREER TECH PROGRAM)

The Diversified Occupations Program (DO) is a one-year instructional program for seniors that operates as an integral part of vocational education to provide a cooperative arrangement between the school and employers whereby the student receives general education instruction in the school and on-the-job training through part-time employment in business/industry. The area of training may be in any vocational education area where there are needs for trained persons and must relate to the student's career objective.

The DO Program is a partnership between MCTI, the sending district, the student and the student's parents, and the employer. This training program is designed to help the student to transition from school to the world of work while gaining valuable life and work experience. Students are responsible for finding part-time employment with a local employer which is directly related to the career field they wish to pursue after graduating from high school. This Program is conducted at the student's district high school campus.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Equipment will be specific to the industry and work place	Vary by career pathway	Dependent upon the specific career and work place

CAREERS: Career opportunities will be determined upon receiving employment in a specific industry.

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe

DRAFTING & DESIGN TECHNOLOGY

15.1301 DRAFTING AND DESIGN TECHNOLOGY/TECHNICIAN, GENERAL (PDE APPROVED PROGRAM OF STUDY)

Drafting & Design Technology is an instructional program that generally prepares individuals to apply technical knowledge and skills as each relates to gathering and translating of data or specifications including basic aspects of planning, preparing and interpreting mechanical, architectural, structural, civil, electrical/electronic, topographical and other drawings and sketches used in various engineering fields. Instruction is designed to provide experiences in drawing and CAD; the use of reproduction materials, equipment and processes; the preparation of reports and data sheets for writing specifications; the development of plan and process charts indicating dimensions, tolerances, fasteners, joint requirements and other engineering data; the development of models; and drafting multiple view assembly and sub-assembly drawings as required for manufacture, construction and repair of mechanisms. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Students who successfully complete the Program will have the opportunity to work as entry level CAD-Technicians with mechanical, architectural, and civil drafting professionals. Students may also work in many related careers such as surveying, construction estimating, and specification writing.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Parallel Sliders Triangles and Scales Auto-Cad Architectural Desktop Mechanical Desktop	Mechanical Drafter Architectural Drafter Civil Drafter Interior Designer Engineering	Problem Solving Manual Dexterity Analytical Skills Communication Skills Mechanical Aptitude

CAREERS:

Architectural & Civil Drafters
Mechanical Drafters
Drafters, Other

Certification available to qualified students:

<u>Industry Certification</u>	<u>Provider Name</u>
OSHA Certification	CareerSafe

ELECTRICAL TECHNOLOGY

46.0399 ELECTRICAL AND POWER TRANSMISSION INSTALLERS, OTHER (PDE APPROVED PROGRAM OF STUDY)

The Electrical Technology Program is an instructional program that prepares individuals to apply technical knowledge and skills necessary to install, operate, maintain and repair electrically-energized residential, commercial and industrial systems, and DC and AC motors, controls and electrical distribution panels. Instruction emphasizes practical application of mathematics, science, circuit diagrams and use of electrical codes and includes blueprint reading, sketching and other subjects essential for employment in the electrical occupations. Reading and interpretation of commercial and residential construction wiring codes and specifications, installation and maintenance of wiring, service and distribution networks within large construction complexes are also critical components of the program. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Students are also given the opportunity to pursue advanced training in motor control circuits and power technology applications. Students are also afforded the opportunity to study home automation by using the Smart Home Technology. Students receive practical experience by completing many projects.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Basic and Advanced Electrical Trainers Conduit Bending Equipment Power Wire Pullers Smart House Technology Trainers Analog and Digital Testing Equipment Motor Control Trainers PLC Trainers	Electrician Helper Electrician, Apprentice First Line Supervisor and Manager Electric Motor and Switch Assembler and Repairer	Mechanical Aptitude Problem Solving Skills & Troubleshooting Skills Analytic Skills Ability to Work Independently and in a Team Ability to work in all Weather and heights Communication Skills Knowledge of Algebra

CAREERS:

Electricians
Helpers--Electricians
Security & Fire Alarm Systems Installers
Electrical Power-Line Installers & Repairers

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
PBA Skills Certificate	Pennsylvania Builders Association
Articulated Ladder	American Ladder Institute
Mobile Ladder	American Ladder Institute
Single and Extension Ladder	American Ladder Institute
Step Ladder	American Ladder Institute

ELECTRONICS TECHNOLOGY

15.0303 ELECTRICAL, ELECTRONIC AND COMMUNICATIONS ENGINEERING TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

Electronics Technology is an instructional program that prepares individuals to apply basic electronic principles and technical skills to the production, calibration, estimation, testing, assembling, installation and maintenance of electronic equipment. Emphasis is on passive components and solid-state devices; digital circuits; optoelectronic devices; operational amplifiers; audio and RF amplifiers; oscillators; power supplies; and AM, FM and PCM modulators. Knowledge is acquired through theoretical instruction, experimentation and hands-on activities. Instruction will develop basic levels of knowledge, understanding and associated skills essential for entry-level employment in communications, industrial electronics, digital processing, robotics, avionics, biomedical technology and other electronics occupations. Through collaborative curriculum planning with colleges and trade schools, students who participate in this Program are eligible to obtain up to 12 credits advanced standing in a post-secondary program. This Program participates in the Electronics Technicians Association, International Student Certification Program. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Oscilloscope Function Generator Power Supplies Logic Probes Multimeters	Production Repairer Electronic Assembler Electronic Technician Communication Technician Electronic Engineer	Communication Skills Analytical Skills Manual Dexterity Trouble Shooting Skills

CAREERS:

Electrical & Electronic Drafters
Electrical & Electronic Engineering Technologists/Technicians
Electro-Mechanical & Mechatronics Technologists/Technicians
Electrical & Electronics Repairers, Powerhouse, Substation & Relay

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
Articulated Ladder	American Ladder Institute
Mobile Ladder	American Ladder Institute
Single and Extension Ladder	American Ladder Institute
Step Ladder	American Ladder Institute

GRAPHIC COMMUNICATIONS

10.0399 GRAPHIC COMMUNICATIONS, OTHER (PDE APPROVED PROGRAM OF STUDY)

Graphic Communications is an instructional program that generally prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical, electronic and digital graphic and printing equipment. Students learn desktop publishing, layout, composition, presswork and bindery as well as photography, and several graphic arts techniques. Emphasis is on typographical layout and design using computer graphics, photo typesetting, platemaking, offset preparation and operation, paper cutting, ink and color preparation and dynamics and airbrush and screen printing production.

Concentration in the area of graphic arts will permit the student to work in computer design, digital prepress, press work, Sign making/vehicle graphics, screen printing, sandblasting, and more. In addition, the student will be instructed in various finishing operations. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
ProPrint Offset/duplicator printers ABdick Offset/duplicator printers Xerox Color copier Xante Plate Maker 5 & Black & White Printer Epson 44"Large Format Color Plotter Morgan Folding, Scoring, Perforating Machine GBC 44" Hot Laminator & Mounting Machine Saddlestich Machine Multi-die Book Binding Machine Xante Illumina Digital Off-set Press Vinyl Graphic Cutter Hydraulic Paper Cutter Hydraulic 3-Hole Punch Machine 4-Color Screen Printing Machine Screen Printing 30" Dryer Imprinter 44" Cold Laminator Heat Press Transfer Machine Xcaliber Board Trimmer 40" Rotary Trimmer Air Brush Equipment Padding Equipment Bates Numbering System Hot Foil Stamping Machine Exposure Unit Light Table Digital Equipment: Camera - Computers Scanner	Graphic Designer Desktop Publisher Commercial Printing Plants Magazine Publishers Advertising Agencies Self-Employment Sign Company/Vinyl Applications Screen Printer Finishing/Production Worker Off-Set Press Operator Art Director Project Management Specialty Shops	Artistic Ability/Creativity Communication Skills Creative Drive with a Vision Goal Oriented Patience Enjoys Hands-on Work Problem solving troubleshooting Skills Professional Mannerism Works Well in Groups Cognitive Skills Highly Motivated Self-Starters Business Skills

CAREERS:

Commercial & Industrial Designers
Graphic Designers
Desktop Publishers
Prepress Technicians and Workers
Printing Press Operators
Etchers & Engravers

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe

HEALTH PROFESSIONS

51.9999 HEALTH CARE TECHNOLOGY (PDE APPROVED PROGRAM OF STUDY)

Health Professions provides students with a variety of educational, informational and biological technology to prepare students for future employment in an ever-changing diverse healthcare field. Students completing Monroe Career & Technical Institute's Health Professions will find themselves well prepared to enter the workforce as a PCA (Patient Care Attendant) or Homecare Provider. Upon successful completion, students will have obtained First Aid, CPR, AED and Direct Care Staff Certifications. The Health Professions program includes an extensive eight-week shadowing experience for seniors at an approved medical facility. The student shadowing experience encompasses live interaction within the following disciplines: Emergency Care, Laboratory Procedures, Medical Surgical Unit, Radiology, Respiratory Therapy, Social Services, Therapy, and Ultrasound Technology. Successful students will also be prepared to obtain additional certifications in Phlebotomy, EMT, Medical Assistant, EKG and Nurse Aide with MCTI's ACE (Adult Continuing Education) evening program and/or participate in an articulation agreement with Northampton Community College.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Datascope Pulse Oximeter Computer and Software Dental Operator Operational Patient Units Stretcher Rehabilitation Equipment Mechanical Lifts CPR Mannequins Wheelchairs	Patient Care Attendant (PCA) Homecare Provider	Dependable Problem Solving Skills Excellent Communication Skills Able to Work Independently and in a Team Critical Thinking Skills

CAREERS:

Health Technologists & Technicians, Other
Healthcare Practitioners & Technical Workers, Other
Healthcare Support Workers, Other

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification – Healthcare	CareerSafe
BLS Healthcare Provider	American Heart Association
Personal Care Home Direct Care Staff Certificate	Pennsylvania Department of Human Services

HORTICULTURE (Floriculture & Landscaping)

01.0601 APPLIED HORTICULTURE/HORTICULTURAL OPERATIONS, GENERAL
(PDE APPROVED PROGRAM OF STUDY)

An instructional program having a combination of organized subject matter and practical experiences that generally prepares individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish, maintain and manage horticultural enterprises. Instruction emphasizes knowledge, understanding and application important to establishing, maintaining and managing horticultural enterprises such as arboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management and turf management. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations/Employment Opportunities:	Personal Qualifications:
Mowers Skid Steer Tractor String Trimmer Computers Tillers	Landscape Architect Landscaping and Grounds Keeping Agricultural Worker Nursery and Greenhouse Workers Arborist	Ability to Work Independently and in a Team Problem Solving Artistic Ability Analytical Skills Communication Skills

CAREERS:

Farmers, Ranchers, and Other Agricultural Managers
Nursery and Greenhouse Managers
Floral Designer
First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers
Landscaping & Groundskeeping Workers
Retail Salesperson
Farmworkers and Laborers, Crop, Nursery and Greenhouse

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification - Agriculture	CareerSafe
National Safe Tractor and Machinery Operator	Hazardous Occupations and Safety Training in Agriculture (HOSTA)
Certified Landscape Technician (CLT)	Pennsylvania Department of Agriculture
Pennsylvania Certified Horticulturist (PCH)	Pennsylvania Department of Agriculture
Worker Protection Standard Training	US Environmental Protection Agency Region III

HEATING, VENTILATION & AIR CONDITIONING

47.0201 HEATING, AIR CONDITIONING, VENTILATION AND REFRIGERATION MAINTENANCE TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

The Heating, Ventilation & Air Conditioning (HVAC) Program is an instructional program that combines classroom and practical learning experiences. This Program 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. This Program is certified by the National Center for Construction Education and Research. The Program consists of a list of PDE required tasks and additional local or value added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Electric Pipe Threader Acetylene and Propane Gas Torches Bacharach Tester Arc Welders Reclaim and Recovery Unit Refrigerant High Pressure Indicators Electrical Meters Thermal Testers Compressor Testers	Helpers- Installation, Maintenance, and Repair Workers Refrigeration Mechanic Air Conditioning and Heating Mechanics First Line Supervisors of Production and Operating Workers Stationary Engineer	Mechanical Aptitude Ability to Work Independently and in a Team Problem Solving Troubleshooting Skills Communication Skills

CAREERS:

Heating, Air Conditioning, & Refrigeration Mechanics & Installers

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
EPA 608 Certification	Air Conditioning and Refrigeration Institute
PBA Skills Certificate	Pennsylvania Builders Association

MASONRY

46.0101 MASON/MASONRY (PDE APPROVED PROGRAM OF STUDY)

The Masonry Program is an instructional program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, glass block, hard tile, marble and related materials using trowels, levels, hammers, chisels and other hand tools. The masonry curriculum combines classroom and practical learning experience including projects. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Trowels Levels Hammers and Chisels Jointers Diamond Blade Saws Spacing Rulers Mortar Mixers Hydraulic Cutters Bull Floats	Brickmasons and Blockmasons Tile and Marble Setters Segmental Pavers Cement Mason and Concrete Finishers First-line Supervisors and Managers/Supervisors-Construction Trade Workers	Ability to Work Independently and in a Team Creativity Patience Communication Skills

CAREERS:

Supervisors – Construction Trades & Extraction Workers
Brickmasons & Blockmasons
Stonemasons
Tile and Stone Setters
Helpers--Brickmasons, Blockmasons, Stonemasons, & Tile & Marble Setters

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
PBA Skills Certificate	Pennsylvania Builders Association
Articulated Ladder	American Ladder Institute
Mobile Ladder	American Ladder Institute
Single and Extension Ladder	American Ladder Institute
Step Ladder	American Ladder Institute

OUTDOOR POWER EQUIPMENT TECHNOLOGY

47.0699 VEHICLE MAINTENANCE AND REPAIR TECHNOLOGIES, OTHER (PDE APPROVED CAREER TECH PROGRAM)

The Outdoor Power Equipment Technology Program is an instructional program that prepares individuals to apply technical knowledge and skills to repair, service, maintain and diagnose problems on a variety of small internal-combustion gasoline engines and related systems used on portable power equipment such as lawn and garden equipment, chain saws, outboard motors, rototillers, snowmobiles, lawn mowers, motorcycles, personal watercraft and pumps and generators. This Program includes instruction in the principles of the internal-combustion engine and all systems related to the powered unit. Instruction also includes the use of technical and service manuals, state inspection code, care and use of tools and test equipment, engine tune-up/maintenance, engine overhaul, troubleshooting and diagnostic techniques, drive lines and propulsion systems, electrical and electronic systems, suspension and steering systems and service operations and parts management. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Drill Press Band Saw Jaw Table Vise Bench Grinders Mower Blade Balancer/Sharpener Hydraulic Press Grinding Machine Power Hone Boring Bar	Engine Repairer Service Gas-Engine Repairer Power-Saw Mechanic Small-Engine Mechanic	Handling and Moving Objects Making Decisions and Solving problems Standing Analytical Thinking Self-Control Mathematically inclined Able to interpret technical manuals

CAREERS:

First-Line Supervisors of Mechanics, Installers, & Repairers
Motorboat Mechanics and Service Technicians
Motorcycle Mechanics
Outdoor Power Equipment and Other Small Engine Mechanics

Certifications available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
Outdoor Power Equipment Technician Certification	Equipment and Engine Training Council
Master Service Technician	Briggs and Stratton Corporation
STIHL MasterWrench Service Technician-Bronze	STIHL
S/P2 Safety and Pollution Prevention	S/P2
S/P2 Automotive	S/P2

PLUMBING TECHNOLOGY

46.0503 PLUMBING TECHNOLOGY/PLUMBER

(PDE APPROVED PROGRAM OF STUDY)

Plumbing Technology is an instructional program that prepares individuals to practice as licensed plumbers by applying technical knowledge, safety and skills to lay out, assemble, install and maintain plumbing fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, sprinkling and industrial processing systems in home and business environments. The Program includes instruction in source determination, water distribution, waste removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, brazing and soldering, plumbing inspection and applicable codes and standards.

The Program combines classroom and practical learning experiences. Students also become involved with many community service projects related to their program of study. This Program is certified by the National Center for Construction Education and Research. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
Electric Pipe Threader Acetylene and Propane Gas Torches Burner Test Bench Bacharach Tester Gas Welders	Pipefitter and Steamfitter Plumbers Plumber Heating and Air Conditioning Mechanics First Line Supervisor Managers and Mechanics, Installers and Repairers	Mechanical Aptitude Ability to Work Independently and in a team Problem Solving Troubleshooting Skills Communication Skills

CAREERS:

Supervisors – Construction Trades & Extraction Workers
Plumbers, Pipefitters, & Steamfitters
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
EPA 608 Certification	Air Conditioning and Refrigeration Institute
PBA Skills Certificate	Pennsylvania Builders Association

PRECISION MACHINING

48.0501 MACHINE TOOL TECHNOLOGY/MACHINIST (PDE APPROVED PROGRAM OF STUDY)

The Precision Machining Program is an instructional program designed to give individuals instruction, knowledge and skills in all aspects of shaping parts for industrial application. Instruction involves making computations relating to work dimensions, tooling and feeds and speeds of machining. Emphasis is placed upon bench work and the operation of lathes, power saws, milling machines, grinders, drills and computer operated equipment (CNC and CIM). Instruction also includes the use of precision measuring instruments such as layout tools, micrometers and gauges; methods of machining and heat treatment of various metals; blueprint reading; and the layout of machine parts. Instruction prepares students to operate all types of hand and computer-controlled machines.

The Program provides both practical skills and related theory in machine tool operation, CAD drawings along with the technical mathematics, science, and communication skills essential to a career in manufacturing. The Program is certified by the National Institute for Metalworking Skills, Inc. (NIMS). The Program consists of a list of PDE required tasks and additional local or value-added tasks. Students can earn credentials from NIMS.

Specialized Equipment:	Related Occupations/Employment Opportunities:	Personal Qualifications:
CNC Lathe CNC Milling Machine Drill Press Horizontal and Vertical Band Saw Vertical/Horizontal Milling Machines Surface Grinders Computers with Mastercam Cad/Cam Software Lathes 3D Printer 3D Scanner CNC Router	Machine Tool Setter Machinist Machine Tool Operator Tool and Die Maker Mechanical Engineer Mechanical Inspector CNC Programmer	Mechanical Aptitude Manual Dexterity Ability to Work Independently and in a Team Communication Skills

CAREERS:

Computer-Controlled Machine Tool Operators
Computer Numerically Controlled Machine Tool Programmers
Machinists
Multiple Machine Tool Setters, Operators, & Tenders, Metal & Plastic
Tool & Die Makers

Certifications available to qualified students:

Industry Certification	Provider Name
NIMS Machining Level I	National Institute for Metalworking Skills, Inc.
NIMS CNC Milling: Programming Setup and Operations	National Institute for Metalworking Skills, Inc.
NIMS CNC Turning: Programming Setup and Operations	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I CNC Milling	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I CNC Turning	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Manual Drill Press Operations	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Manual Milling	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Manual Surface Grinding	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Manual Turning Between Centers	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Manual Turning with Chucking	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Measurement, Materials and Safety	National Institute for Metalworking Skills, Inc.
NIMS Machining Level I Planning, Benchwork, Layout	National Institute for Metalworking Skills, Inc.

WELDING TECHNOLOGY

48.0508 WELDING TECHNOLOGY/WELDER (PDE APPROVED PROGRAM OF STUDY)

The Welding Technology Program is an instructional program that prepares individuals to apply technical knowledge and skills in gas, arc, shielded and non-shielded metal arc, brazing, flame cutting and plastic welding. Hand, semi-automatic and automatic welding processes are also included in the instruction. Students learn safety practices and types and uses of electrodes and welding rods; properties of metals; blueprint reading; electrical principles; welding symbols and mechanical drawing; use of equipment for testing welds by ultrasonic methods and destruction and hardness testing; use of manuals and specification charts; use of portable grinders; positioning and clamping; and welding standards established by the American Welding Society (AWS), American Society of Mechanical Engineers and American Bureau of Ships. The Program is certified by the American Welding Society. The Program consists of a list of PDE required tasks and additional local or value-added tasks.

Specialized Equipment:	Related Occupations /Employment Opportunities:	Personal Qualifications:
SMAW, GMAW, GTAW, FCAW equipment Oxy-Acetylene, Plasma Cutting equipment All of the above is used with steel, stainless steel, and aluminum	Combination Welder Skilled production Welders and Laborers Engineering Technician	Mechanical Aptitude Manual Dexterity Patience Able to Work Independently Balance and Agility

CAREERS:

Welders, Cutters, Solderers, & Brazers
Welding, Soldering, & Brazing Machine Setters, Operators, and Tenders

Certification available to qualified students:

Industry Certification	Provider Name
OSHA Certification	CareerSafe
Certified Welder	American Welding Society
SMAW 1G 7018 D1.1 Code	American Welding Society
SMAW 2G 7018 D1.1 Code	American Welding Society
SMAW 3G 7018 D1.1 Code	American Welding Society
SMAW 4G 7018 D1.1 Code	American Welding Society
FCAW 1G D1.1 Code	American Welding Society
FCAW 2G D1.1 Code	American Welding Society
FCAW 3G D1.1 Code	American Welding Society
FCAW 4G D1.1 Code	American Welding Society