



# **PROGRAM OF STUDIES HANDBOOK**

Beaver County Career  
& Technology Center

2024-2025

## Mission Statement

The mission of the Beaver County Career & Technology Center is to prepare graduates to be well-trained technicians, ready for the workplace of today and tomorrow, aware of the world around them and prepared for the changing technology.

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# BEAVER COUNTY CAREER & TECHNOLOGY CENTER

Mrs. Mary Jo Kehoe -----Chairperson  
 Mr. Ron Miller -----Vice-Chairperson  
 Ms. Bernadette Mattica -----Treasurer  
 Mrs. Lee Ann Prodonovich ----- Board Secretary

<u>Member</u>	<u>School District</u>	<u>Alternate</u>
Mrs. Catherine Colalella	Aliquippa	Ms. Janice Cain
Mrs. Mary Jo Kehoe	Ambridge	Ms. Amy Fitsko
Mr. Luke Berardelli	Beaver	Ms. Merilu Hill
Mr. Ronald Miller	Big Beaver Falls	Mrs. Darcelle Slappy
Mr. Andrew Huzyak	Blackhawk	To Be Determined
Mr. Dennis Bloom	Central Valley	To Be Determined
Mr. Gerald Inman III	Freedom	Ms. Sharon Geibel
Mrs. Carla Buxton	Hopewell	Ms. Bethany Pistorius
Mrs. Bernadette Mattica	New Brighton	Ms. Christeen Ceratti
Mr. Chris Becker	Midland	
Mrs. Christy Hughes	Riverside	Ms. Kasey Kraus
Ms. Jocelyn Haskins	Rochester	Mr. Lawrence Blackwell
Mr. Michael Rounds	South Side	Mr. Craig Stewart
Mr. John Metzler	Western Beaver	Mr. John Sosack

## ADMINISTRATIVE STAFF

Ms. Laura J. DelVecchio.....BCCTC Administrative Director  
 Mr. Barry King.....Principal/Assistant Director  
 Dr. Donna Nugent.....Chief School Administrator/Superintendent of Record

ADMINISTRATIVE SUPPORT STAFF

Mrs. Lee Ann Prodonovich -----Administrative Assistant  
Ms. LeeAnn Robinson -----Administrative Assistant  
Miss Toyauna Slappy -----Administrative Assistant  
Ms. Amber Cochran-----Administrative Assistant

INSTRUCTIONAL AIDES

Evie Narry  
Jon Kaszer  
Susan Mano  
Elizabeth Mitsch  
Alaina Prendergast  
Glenda Tetemanza  
Dominick Treemarchi  
Greg Wilber  
Alan Valasek

PROGRAM OFFERINGS AND STAFF

Automotive Technology -----Daniel Mengel  
Business Information Systems----- Renee DiGiacomo  
Career Assessment, Recruiting  
& Marketing Specialist ----- Vince Gratteri  
Carpentry ----- David D. Liptak  
Collision Repair Technology -----Albert Kollinger III  
Commercial Art & Design -----Francis Mano  
Cooperative Coordinator -----Randy Reed  
Cosmetology -----Dolores J. Mason  
Cosmetology -----Laurie Conti  
Cosmetology ----- Dominic Darenkamp  
Culinary Arts ----- Benjamin Piper  
Diversified Occupations -----Elizabeth Lanshcak  
Electrical Occupations ----- John Macuga  
First Aide/Attendance Clerk -----Carol Gaido-Schmidt  
Graphic Arts/Printing -----Nicole DeMark  
Greenhouse/Landscaping -----Bryan Lehocky  
Health Occupations -----Nicole Todd  
HVAC-R -----Daniel Ostronic  
Learning Facilitator -----Susan Chance  
Learning Facilitator -----Jamie Kuriger  
Learning Facilitator ----- Tom Majors  
Logistics & Materials Management -----Christopher Graham  
Machine Tool Technology -----George Metz  
Masonry/Bricklaying----- Arnold Shaner  
School Counselor ----- Anne Liller  
School Counselor ----- Dan LaRue  
School Resource Officer -----Officer Jeff Nolfi  
Veterinary Assistant-----Stephanie Vuckovich  
Welding----- Carl Cosentino

## **Beaver County Career & Technology Center**

145 Poplar Avenue  
Monaca, PA 15061  
724-728-5800  
724-775-2299 (FAX)  
[www.bcctc.org](http://www.bcctc.org)

### **Administration:**

*Ms. Laura DelVecchio*  
*Administrative Director*

*Mr. Barry King*  
*Principal/  
Assistant Director*

**MESSAGE FROM THE DIRECTOR** The Beaver County Career & Technology Center is a full-time career and technology center that serves the fourteen (14) school districts of Beaver County in Pennsylvania. Our school is dedicated to providing a program of high quality, cutting-edge technical training integrated with a strong academic education and an emphasis on critical thinking, problem-solving, decision-making, and team-building skills.

**HISTORY OF THE BEAVER COUNTY CTC** The Beaver County CTC officially opened its doors in the fall of 1978 under the name of the Beaver County Area Vocational Technical School. It is a full-time area vocational-technical school that serves the fourteen (14) school districts of Beaver County in Pennsylvania. The school is located in Center Township adjacent to the Community College of Beaver County.

**INDUSTRY LEADERS GUIDE THE WAY** The Beaver County Career & Technology Center's curriculum is closely tied to the needs of business and industry. Through twice-yearly Occupation Advisory Committee meetings, advisors guide program development to assure that the curriculum and equipment match the needs and standards of employers. Employers tell us what skills are needed for success in their fields and those are the skills we teach. Instructors align course curriculums with skills employers need for employees to be successful.

**"SOAR" (STUDENTS OCCUPATIONALLY AND ACADEMICALLY READY)** Since SOAR was introduced at the BCCTC, many positive changes have taken place.

**Mission of SOAR:** The mission of SOAR is to prepare students for college and careers in a diverse, high-performing workforce.

**Goal of SOAR:** SOAR is the career and technical Program of Study (POS) educational plan that articulates the secondary career and technical programs to postsecondary degree or diploma or certificate program. SOAR programs lead students into a career pathway that align the secondary courses to a postsecondary program to complete a degree or certificate.

**What is SOAR:** SOAR is built on programs of study which incorporate secondary education and postsecondary education elements and include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content. These career and technical programs of study include a statewide articulation agreement partnership between secondary schools and postsecondary institutions.

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**SOAR Supports High Demand Careers:** SOAR programs prepare today's student for High Priority Occupations (HPO) which include career categories that are in high demand by employers, have higher skill needs, and are most likely to provide family sustaining wages.

**Benefits of SOAR:**

- Saving Money on College Tuition
- Saving Time by Shortening College Attendance
- Getting on the Right Career Pathway
- Entering the Job Market Ready
- Getting a Consistent Education

**Framework of SOAR:**

Secondary Component

- Validated Competency Lists (follow directions below to go to the SOAR website):
  - Go to: [www.collegetransfer.net](http://www.collegetransfer.net)
  - Go to: SEARCH on the top menu
  - Scroll down to: PA Bureau of CTE SOAR Programs
  - Enter: Program Name or CIP Code
  - Enter: Graduation Year
  - Click: SEARCH for participating colleges
- Alignment to PA Academic Standards
- Articulation to Postsecondary Institutions ([www.collegetransfer.net](http://www.collegetransfer.net))
- PDE/BCTE Career and Technical Education Program Approval
- End of Program Assessment
- Industry Certification Alignment, if appropriate

We look forward to serving the needs of the students and employers of Beaver County.



## Admissions Information

The Beaver County CTC offers a variety of programs designed to meet students' educational needs and career goals. Students who have an interest and desire to pursue career or technical education should contact their sending school counselor, who will work closely with the Beaver County CTC School Counselors to facilitate the enrollment process.

All students apply for admission through their sending school and receive their diploma from their sending school district. A certificate of completion from the Beaver County CTC will be presented to students who have successfully completed their curriculum at our graduation ceremony. There are a limited number of students accepted into a program to allow for individualized, high-skilled instruction. To be considered for enrollment, students should have their application on file at the Beaver County CTC as early as possible.

In the months preceding enrollment, students are presented with course information by the Beaver County CTC Career Counselor assigned at their program and they are also invited to tour the Beaver County CTC during the day or attend our open house in the evening. Students may check with their sending school counselors for scheduled visitation dates.



Students who attend private and parochial schools or are home-schooled are also welcome to attend the Beaver County CTC. These students need to contact the superintendent's office of the school district in which they reside to obtain enrollment procedures.

### **TUITION AND FEES**

**Tuition-free** public education is provided to high school students through the tax support of citizens and businesses from each of the fourteen Beaver County school districts. The programs offered at Beaver County CTC are electives and some of the

programs require that students purchase uniforms. For some programs, there are fees for items that the student will keep, such as a tool kit or books.



## ***Beaver County Career & Technology Center Programs Offered***

***Automotive Technology***

***Business Information Systems***

***Carpentry***

***Collision Repair Technology***

***Commercial Art***

***Cosmetology***

***Culinary Arts***

***Diversified Occupations***

***Electrical Occupations***

***Graphic Arts & Printing***

***Greenhouse/Landscaping***

***Health Occupations***

***HVAC-R***

***Logistics Materials Management***

***Machine Tool Technology***

***Masonry/Bricklaying***

***Veterinary Assistant***

***Welding***

***PA Department of Education approved Programs of Study that qualify  
students for articulated credits throughout the state.***

2024-2025 Beaver County CTC Articulation Agreements  
 Program of Studies PA State Articulation Agreement

CTC Program & CIP Code	Automotive Technology 47.0604	Business Information Systems 52.1201	Carpentry 46.0201	Collision Repair Technology 47.0603	Commercial Art & Design 50.0402	Cosmetology 12.0401	Culinary Arts 12.0508	Diversified Occupations 32.0105	Electrical Occupations 46.0399	Graphic Arts & Printing 10.0399	Greenhouse/Landscaping 01.0601	Health Occupations 51.0899	HVAC/R 47.0201	Logistics & Materials Management 52.0203	Machine Tool Technology 48.0501	Masonry/Bricklaying 46.0101	Veterinary Assistant 51.0808	Welding 48.0508	
Douglas Education Center						Transferable hours													
Laurel Technical Institute						Transferable hours													
Pennsylvania College of Technology								3											
PTC		7			7		9		11	4			10					9	
Pennsylvania Western University																	3		

**SOAR PROGRAM OF STUDIES PA STATE ARTICULATION AGREEMENT:** Go to : [www.collegetransfer.net](http://www.collegetransfer.net) to see how SOAR Programs are accepted at Post-Secondary schools/ Go to: [www.collegetransfer.net/](http://www.collegetransfer.net/) Scroll over to SEARCH at top of page /under SEARCH- Scroll down to PA Bureau of CTE SOAR Programs / Enter Program Name or CIP Code Enter Graduation Year /Click SEARCH for Participating colleges

**\*\* ARTICULATION AGREEMENTS - Are cooperative arrangements between schools for granting admission and college credits to students who are continuing their education from one institution to another.\*\***

CCBC ARTICULATION AGREEMENT(S)		Degree/ Track								
		Applied Management/ Associate in Applied Sciences	Any Associate Degree	Associate Degree in Nursing	Associate Degree in Health Sciences	Associate of Science Degree Veterinary Technician	Associate Degree in Building Trade Technology and Management	Associate Degree in Business	Business Management Certificate	Associate Degree in Early Learning and Development
CTC Program & CIP Code	Automotive Technology 47.0604	24	10							
	Business Information Systems 52.1201	24	10					16	9	
	Carpentry 46.0201	24	10				17			
	Collision Repair Technology 47.0603	24	10							
	Commercial Art & Design 50.0402	24	10							
	Cosmetology 12.0401	24	10							
	Culinary Arts 12.0508	24	10							
	Diversified Occupaitons 32.0105	24	10							7
	Electrical Occupations 46.0399	24	10				17			
	Graphic Arts & Printing 10.0399	24	10							
	Greenhouse/Landscaping 01.0601	24	10				17			
	Health Occupations 51.0899	24	10	9	9					
	HVAC/R 47.0201	24	10				17			
	Logistics & Materials Management 52.0203	24	10							
	Machine Tool Technology 48.0501	24	10							
	Masonry/ Bricklaying 46.0101	24	10				17			
	Veterinary Assistant 51.0808	24	10			7				
Welding 48.0508	24	10				17				

## FOURTEEN PARTICIPATING SCHOOL DISTRICTS

Our School is an extension of the educational programs of the fourteen (14) participating school districts. The option of vocational education at the Beaver County CTC gives students a full range of educational choices.

Aliquippa Area School District  
800 21<sup>st</sup> Street  
Aliquippa, PA 15001-3998  
724-857-7500

Hopewell Area School District  
2354 Brodhead Road  
Aliquippa, PA 15001  
724-375-6691

Ambridge Area School District  
901 Duss Avenue  
Ambridge, PA 15003  
724-266-2833

Midland Borough School District  
173 Seventh Street  
Midland, PA 15059  
724-643-8650

Beaver Area School District  
855 Second Street  
Beaver, PA 15009  
724-774-4021

New Brighton Area School District  
3225 43<sup>rd</sup> Street  
New Brighton, PA 15066 724-  
843-1795

Big Beaver Falls School District  
503 Eighth Avenue  
Beaver Falls, PA 15010  
724-843-3420

Riverside Beaver County School District  
318 Country Club Drive  
Ellwood City, PA 16117  
724-758-7512

Blackhawk School District  
500 Blackhawk Road Beaver Falls, PA  
15010 724-846-6600

Rochester Area High School District 540 Reno  
Street  
Rochester, PA 15074  
724-775-7500

Central Valley School District  
160 Baker Road Extension Monaca, PA  
15061  
724-775-5600

South Side Area School District  
4949 State Route 151  
Hookstown, PA 15050  
724-573-9581

Freedom Area School District  
1701 Eighth Avenue  
Freedom, PA 15042  
724-775-7644

Western Beaver County School District  
343 Ridgemont Drive  
Midland, PA 15059  
724-643-9310

## FAQ'S

**Q. WHAT IS A CAREER & TECHNOLOGY CENTER?**

A. It is an extension of the courses of study of your own high school, offering training in occupational, vocational and technical programs. This training will develop attitudes and skills that can lead to employment and/or further education.

**Q. HOW IS THE BEAVER COUNTY CTC SUPPORTED?**

A. The Beaver County CTC is a school that is owned jointly by the fourteen (14) Beaver County School Districts. Students do not pay a tuition charge to attend.

**Q. WHO CAN ATTEND THE BEAVER COUNTY CTC?**

A. Students enrolled in grades 11 and 12 who reside in Beaver County may attend the Beaver County CTC. Students who are interested in enrolling in the Cosmetology Program must start in grade 10. Students enrolling in Business Information Systems, Collision Repair Technology, Electrical Occupations and HVAC-R may start Beaver County CTC in grade 10. Students enrolled in private schools are also welcome to attend the Beaver County CTC. Adults are encouraged to take advantage of the outstanding adult education offerings at the Beaver County CTC.

**Q. HOW WILL THE BEAVER COUNTY CTC HELP ME?**

A. The education you will receive at the Beaver County CTC will open doors for you. You will learn new skills that are valued by employers. You will experience real-life work situations in your chosen career field, and you will have options to continue your education after high school. Beaver County CTC programs are designed to prepare students of various ability levels to enter jobs in technical and skilled occupations. Most of the students who complete a Beaver County CTC program find employment in their area of study or further their education in college or technical schools. Employers are eager to hire Beaver County CTC students because they have gained hands-on skills and experience and need minimal training. Additionally, students will have the opportunity to earn industry certification(s) that gives them the edge when seeking employment.

**Q. DOES THE BEAVER COUNTY CTC HELP GRADUATES FIND JOBS?**

A. Yes. A placement service is established at the BEAVER COUNTY CTC. Everything possible will be done to help students find employment in the area for which they are trained. A work study program is offered to students during their senior year if they meet the requirements. Also, each senior will be provided with copies of their resume when they graduate.

**Q. IS COLLEGE AN OPTION AFTER BEAVER COUNTY CTC?**

A. About 70% of Beaver County CTC graduates continue their education in colleges, technical schools, or apprenticeships. Beaver County CTC programs provide practical experience to compliment students' academic interests. Almost every program at the Beaver County CTC offers students an opportunity to earn advanced credits through agreements with the Community College of Beaver County and several other educational institutions.

**Q. CAN I GAIN WORK EXPERIENCE WHILE I'M LEARNING?**

A. During their senior year, qualified students may gain experience in work environments related to their field of study. Options available include job-shadowing activities, clinical experiences, or a cooperative education arrangement with employers, through which students "earn while they learn".

**Q. WHAT IS THE PROCESS FOR REGISTRATION FOR THE BEAVER COUNTY CTC?**

A. Every high school student has the legal right to attend the Beaver County CTC. Your home-school school counselor can register you for the Beaver County CTC at the same time you register for other classes. If you have any questions or problems, see your school counselor or call the Beaver County CTC School Counselors, Mr. Dan LaRue at ext. 361 or Mrs. Anne Liller at ext. 250.

**Q. HOW CAN I OBTAIN INFORMATION ABOUT THE BEAVER COUNTY CTC?**

A. You can obtain information from your home-school school counselor, the BCCTC School Counselor, on our web page ([www.bcctc.org](http://www.bcctc.org)), or by calling us at 724-728-5800.

# WORK-BASED LEARNING

**AT THE BEAVER COUNTY CTC**, learning is not confined to the four walls of a classroom. Through a program called Work-based Learning, students have the chance to learn firsthand about various jobs and careers. The program includes three components: cooperative education, job shadowing, and clinical experience. Each of these opportunities enables students to learn about work environments and job responsibilities.

## COOPERATIVE EDUCATION

Cooperative education, or co-op, is a unique plan of education that integrates classroom learning with related supervised work experience. Eligibility to participate in co-op is determined by meeting the criteria based on grades, attendance, and a recommendation from the Beaver County CTC instructor.

Students benefit from participation in cooperative education by getting a head start on their careers while they are still enrolled in school. Supported and guided by their instructor and the co-op coordinator, students work in approved training sites and earn a fair wage for their efforts. They apply the skills and knowledge they have learned at the Beaver County CTC to actual job responsibilities, and at the same time, develop important interpersonal skills, teamwork strategies, and work ethics that are necessary for success in the workplace. Co-op bridges the gap between education and the world of work.

Employers also benefit from their participation in cooperative education. The program allows local companies to hire students with good technical skills who can then be molded to meet the current demands of the industry. Although many students become permanent employees after graduation, employers are not obligated to retain students for any reason.

Ongoing communication is encouraged among all participants throughout the process to ensure the success of each student's experience. The employer works with the co-op coordinator to provide feedback regarding the student's progress. Credit toward a high school diploma is earned for satisfactory work experience, and grades are assigned based on the employer's evaluation and the student's performance at the Beaver County CTC.

## CLINICAL EXPERIENCE

Clinical experience is available to students enrolled in the Health Occupations program. Intended to provide valuable on-the-job training and insights, clinical experience takes students into the workplace for a period of time, during which they become involved in day-to-day operations and job functions. Clinical experience allows students to be exposed to the particular fields they are considering.

## JOB SHADOWING

Job shadowing is a short-term experience during which students accompany workers as they go about their day performing duties in their everyday work environment. Students benefit from seeing work as it is performed in actual employment situations and enjoy learning firsthand from adults who have careers in fields that interest them. The program is designed to give students a better understanding of the career and what is needed to help them in their decision-making process.

# STUDENT ORGANIZATIONS AND ACTIVITIES

**STUDENTS AT THE BEAVER COUNTY CTC HAVE A WEALTH OF OPPORTUNITIES** to expand their learning while having fun and making new friends. Participation in student organizations and activities fosters leadership development, community service, and cooperative interaction among students and faculty. Students enjoy a broad spectrum of activities, including skill competitions, career and technology fairs, trips, service projects, and special events.

Competition among peers can exert a strong motivating force to achieve and excel, as many Beaver County CTC students have discovered while competing as individuals or in teams at regional, state and national skill contests. The school has built a solid reputation for competing and winning at all levels.

At present, nine (9) student organizations are very active at the Beaver County CTC. Students may choose to join **SKILLSUSA**, **FCCLA** (Family, Career, and Community Leaders of America), **DECA** (Distributive Education Clubs of America), **FBLA** (Future Business Leaders of America), **FFA** (Future Farmers of America), **AWS** (American Welding Society), **NTHS** (National Technical Honor Society), **NHBA** (National Home Builders Association) and **HOSA** (Health Occupation Students of America). The objective of these organizations is to offer challenging programs that build leadership, citizenship, and pride in career education. Each organization is composed of student officers, and members who work toward the betterment of individuals, the school, and the local community.

**SKILLSUSA** - The largest of the organizations has over 300,000 members nationwide. It emphasizes respect for the dignity of work, high standards and trade ethics, workmanship, scholarship, safety and partnership with business. It also serves as the school's student government, since all students are eligible to participate in SkillsUSA. District, state, and national conferences provide students with ample opportunity to compete for recognition and achievement awards.

**FCCLA** - The Family, Career and Community Leaders of America Club is open to students enrolled in the Food Preparation & Service program. This organization places emphasis on promoting personal growth and leadership development through family and consumer science education, focusing on the multiple roles of family members, wage earners, and community leaders. There are FCCLA chapters in all 50 states, plus Puerto Rico. Pennsylvania boasts over 700 members, with chapters in every county. The Beaver County CTC chapter members are active participants in leadership training events, competitions, and state and national conferences.

**DECA** – The Distributive Education Clubs of America is an association of marketing students in a career and technical student organization designated to enhance a specific career objective in marketing, management, business, or distribution. Any student enrolled in a Marketing or Business Education course is eligible for membership in local, state and national DECA chapters. The DECA tagline is: "Developing Future Leaders in Marketing, Management and Entrepreneurship." The four points are: **Vocational Understanding** - Students develop first-hand knowledge of merchandising management and the opportunities available in their chosen career. **Civic Consciousness** - Students learn to recognize their obligations to the community in which they live. **Social Intelligence** - DECA members develop poise and social graces as well as becoming aware of the social environment through DECA social events.

**Leadership Development** - DECA activities are designed to give students the opportunity to participate in many activities which teach leadership skills.

**FBLA** – The Future Business Leaders of America is an educational association for students preparing for careers in business, entrepreneurial, or business-related fields. The association prepares students for employment by promoting competent, aggressive business leadership, increasing understanding of American free enterprise, establishing career goals, encouraging scholarships, promoting efficient money management, and developing character and self-confidence. Co-curricular activities encourage career development, civic service, economic education, community involvement and business advocacy. Partnerships are formed with Chambers of Commerce, local businesses, industries, and government. An extensive skills competition program is offered to challenge members' achievements in their academic pursuits. Membership in FBLA is unified on the local, state, and national levels. FBLA has over 250,000 active members in more than 13,000 chartered chapters throughout the United States, its territories, the Pacific, Asia and Europe.

**FFA** – The Future Farmers organization is for students preparing for careers in the industry of agriculture. FFA activities and award programs complement instruction in vocational agriculture/agribusiness by giving students practical experience in the application of agricultural skills and knowledge gained in classes. A major emphasis of the FFA Club is the development of leadership skills and abilities to prepare young people for leadership roles in their agricultural careers. To be a member of FFA, students must be enrolled in the vocational agriculture/agribusiness and the Vet assistant program. Students may retain their membership in the FFA following their graduation until age 21. FFA makes a positive difference in the lives of students by developing their potential for **premier leadership, personal growth and career success** through agricultural education. The mission of Agricultural Education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resource systems.

**AWS** – The American Welding Society was founded in 1919 to help keep the United States competitive in an ever-changing industrial world. Since it was founded, it has grown to over 50,000 members from all over the world. The AWS helps to set standards in welding procedures, welding supplies, qualifications for welders, inspection procedures and standards of education in the welding field. The Beaver Valley Student Chapter was organized in 1989 as a partnership with the Community College of Beaver County's welding program. The Beaver Valley Student Chapter is part of the Pittsburgh section of the AWS. The Student Chapter annually elects officers, competes at the Pittsburgh's Section's Weld-Off competition, attends technical meetings, and takes part in the annual Student Day activities.



**NTHS** - The purpose of the National Technical Honor Society is to reward excellence in workforce education, develop self-esteem, pride and encourage students to reach for higher levels of achievement, promote business and industry's critical work-place values - honesty, responsibility, initiative, teamwork, productivity, leadership, and citizenship, help schools build and maintain effective partnerships with local business and industry, and champion a stronger, more positive image for workforce education in America. Society membership is an important career and professional investment recognized by education, business and industry. Members receive the NTHS membership certificate, pin, card, graduation tassel, window decal and official NTHS seal to be applied to the member's diploma or training certificate, the opportunity to purchase NTHS commencement accessories and other official NTHS gear, *The Artisan*, the online newsletter of the Society, and personal recommendations for employment, college admission and scholarships provided by NTHS National Headquarters. The NTHS is an internationally recognized and proven program with over 1,500 member schools and colleges. The NTHS contributes to a strong, positive school image in the local community, and membership develops self-esteem and pride.

**NHBA** – National Home Builders Association – Each chapter is sponsored by a local or state Home Builders Association (HBA). Students participate in field trips, internships, and community projects. They are eligible for scholarships and summer job opportunities.

**HOSA** - Health Occupations Students of America – Starting with the 2014-2015 school year, BCCTC began offering HOSA in the Health Occupations Curriculum. The benefits of offering a HOSA chapter are below:



- The curriculum, students, and overall success of the program would improve with this added opportunity for professional development, leadership, competition, networking, and scholarship awards.
- Opportunities for scholarships are available with HOSA.



## **ADULT TRAINING FOR TODAY'S WORKFORCE**

For 46 years, the Beaver County CTC has been providing training to meet the unique needs and circumstances of adult learners in Beaver County and surrounding areas. Day and evening programs are available for dislocated workers, persons wishing to upgrade their skills for career growth, and for those seeking to start new careers in today's ever-changing and increasingly technical job market.

The Beaver County CTC's competency-based curriculum is especially appealing to adults and allows for flexible scheduling. The Beaver County CTC offers affordable pricing, highly qualified instructors, state-of-the-art labs and equipment, and course content that is continuously updated with input from Beaver County employers.

Continuing education staff members advise adult students regarding career and training decisions and assist in job searches. Most programs are approved for tuition assistance from such sources as CareerLink, the Office of Vocational Rehabilitation, TRA/TAA and the Veteran's Administration. The continuing education department works in partnership with CareerLink.

Employers coordinating their own training programs may select evening courses that meet their content and scheduling needs or work with the Beaver County CTC Adult Education Coordinator to customize training tailored to their business and their workforce.

### **ADULT DAY SCHOOL**

The adult day school at the Beaver County CTC offers opportunities for persons seeking new careers or upgraded training in technical field and the trades. The flexibility of the competency-based, self-paced curriculum allows for adult enrollment throughout the school year. Adults learn in an atmosphere that encourages hands-on practice in exceptionally well-equipped labs under the supervision of expert instructors. Course descriptions are included in this book and are also on our website at [www.bcctc.org](http://www.bcctc.org).

Adult day students are integrated into the Beaver County CTC on a space-available basis. It is easy to apply. Call 724-728-5800, ext. 215, for any questions you may have including the current fee for tuition, and an application for enrollment. You will be scheduled for an interview and tour. All adult day students are required to obtain a criminal history clearance, child abuse clearance, and fingerprinting clearance for which there are minimal fees.

### **APPRENTICESHIP PROGRAMS**

The Beaver County CTC is one of the most comprehensive sources for related classroom training for apprentices. The curriculum is planned and reviewed annually in cooperation with the co-sponsoring trade organizations and the Bureau of Apprenticeship and Training, U.S. Department of Labor.

### **CERTIFICATION COURSES**

The Beaver County CTC offers courses that prepare students for state or federal certification exams in various fields. Each course description includes the certifications that are offered to the students.

# LEARNING FACILITATOR

Facilitator: Ms. Susan Chance

Facilitator: Ms. Jamie Kuriger

Facilitator: Mr. Tom Majors

Assistant: Ms. Glenda Tetemanza

## LEARNING CENTER

The primary purpose of the learning center is to aid all students. Many students, for a variety of reasons, are struggling with education. The learning center staff is available to offer assistance, modifications, and/or adaptations as outlined in individual learning plans.

Industry standards, craft committees, and Pennsylvania State Standards drive vocational programs. Each CTC student is expected to develop strong work ethic skills and improve reading, writing, and math skills in relationship to their career path. Students are encouraged to succeed in their paths by practicing self-advocacy skills and requesting and accepting assistance from all available resources.

The goal of the learning center is to promote achievement for all our students. The Learning Facilitator and staff will foster self-confidence, self-discipline, and accountability for choices. We look forward to creating a partnership with parents, family, and the community to assist the student to reach his or her potential.

The Beaver County CTC welcomes students with disabilities. The Individuals with Disabilities Education Act (IDEA) makes it clear that all schools have the duty to educate children in the least restrictive environment. The Beaver County CTC is committed to providing vocational education to students in the general education setting.



# Automotive Technology

PDE Approved Program of Studies - CIP Code 47.0604

## Certifications

Lift It Right  
Automotive Service  
Pollution Prevention  
Automotive Service  
Safety  
OSHA- 10  
S/P2 Safety and  
Pollution Prevention  
S/P2 Automotive  
S/P2 Service Safety

## Career Pathways Listing

Tire Repairers and  
Changers

Electronic Equipment  
Installers, Motor Vehicles

Service Station  
Attendants

**Instructor: Mr. Dan Mengel**  
**Assistant: Mr. Alan Valasek**

An instructional program that prepares individuals to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. This program includes computer analysis of malfunctions in electrical systems, cooling systems, brake systems, drive train and suspension systems through the use of technical repair information. State Inspection and Emission Inspection Certifications are offered.

Most employers regard the successful completion of a training program in automotive technology as the best preparation for trainee positions. High school programs, while an asset, vary greatly in scope. Graduates of these programs may need further training to become qualified. Students who complete this program are well prepared to enter entry-level technician positions or to advance their technical education.

The ability to diagnose the source of a problem quickly and accurately requires good reasoning ability and a thorough knowledge of automobiles. Many technicians consider diagnosing hard-to-find troubles one of their most challenging and satisfying duties. For trainee automotive service technician jobs, employers look for people with strong communication and analytical skills. Technicians need good reading, mathematics, and computer skills to study technical manuals. They must also read to keep up with new technology and learn new service and repair procedures and specifications.



# Business Information Systems

PDE Approved Program of Study CIP Code 52.1201

**Instructor: Ms. Renee DiGiacomo**

Technology is the fastest growing field right now, and there is no sign of it stopping any time soon! The Business Information Systems' program combines studies in computer information systems with business/management courses, which serves as a bridge between technical and business communities. This bridge connects students to exciting careers that use technology. Students who study in this program for two years will graduate with a strong understanding of computers in the business world, possess marketable skills, and be able to pass industry-level certification exams, which makes them more credible job candidates.

The U.S. Bureau for Labor Statistics indicates that the need for computer professionals and executives is growing at a fast rate as companies are becoming more global. Information Technology has the greatest potential for new jobs and is growing by 37% by the year 2018. These jobs are among the highest paid and have the highest rate of job satisfaction.

This program provides industry-related curriculum that prepares students for post-secondary schooling and business and technological careers. The two-year studies include Computer Literacy Basics, Internet Core Concepts, Information Technology, Microsoft Office 2013 (with an emphasis on Excel and Access), Personal Finance, Introduction to Business, Business Communications and Ethics, and Cyber Security. Supplemental coursework includes: Intro to Programming (using Scratch and Alice), Career Education (focusing on successful job interviewing), and Career Portfolio. Students who graduate from this program will be able to:

- Understand the concepts of computer operating systems, hardware and software interactions, firewalls, internal components and peripherals, storage devices, virus detection, and networking.
- Identify document task requirements and make educated decisions about technologies and appropriate applications.
- Understand concepts of Cyber Security, a fast-growing field of IT, and the importance of solid security measures that ensure confidentiality, integrity, and availability of data.
- Be knowledgeable enough to take and pass Microsoft Office Specialist (MOS) certification exams.
- Be knowledgeable enough to take and pass Internet Core Concepts (IC<sup>3</sup>) certification exams.
- Identify intrinsic hardware components of the computer.



## BIS Certifications

Microsoft Word  
Microsoft PowerPoint  
Microsoft Excel  
ICDL  
IC3

## Units of Instruction:

- Computing Fundamentals
- Key Applications
- Living Online



## BUSINESS INFORMATION SYSTEMS - CONTINUED

- Understand that good communication skills are the foundation of any successful businessperson.
- Understand human, cultural, and societal issues related to business and technology and practice legal and ethical behavior.
- Work collaboratively for project development and presentations.
- Create and graduate with a professional career portfolio.
- Successfully prepare and interview for a job/career.

Students who graduate from the program with exemplary grades and attendance may qualify for one of the program's articulation agreements with local post-secondary schools, colleges, and universities. The BCCTC is a registered Certiport testing center, and students who work to potential are offered industry-related certification tests, which can assist them with reaching their educational and personal goals and market their credentials while maximizing their employment opportunities.

Future Business Leaders of America (FBLA) is a prestigious business club that has been around for decades. It is also the premiere club that is practiced in the BIS classroom. Students who are active members will learn valuable leadership skills and will prepare to compete against students from other schools in business/technology related competitions at conferences. Students can earn awards, certificates, and even the chance to travel with the club to compete against PA students at the state level. Students can list FBLA on their resumes to show that they are true leaders in their field! Half-tuition FBLA scholarships are offered from multiple local post-secondary schools.

This program does not limit students to computer-only careers. It can open doors in any field that uses technology and values employees who are skilled at using ever-evolving technology tools and software. If you are interested in understanding how Information Technology can make businesses work better, the Business Information Systems program will help you to reach your career potential!



# Carpentry

PDE Approved Program of Study - CIP Code 46.0201

**Instructor: Mr. David Liptak**

The Carpentry program prepares individuals to apply technical knowledge and skills to layout, 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 finishing carpentry techniques. In addition, students will demonstrate the ability to:

- Describe various types of materials and methods available to the construction trade.
- Describe business functions and principles.
- Describe the complexity of the building construction industry.
- Describe the complex interrelationships among numerous trades and professions within the industry.
- Stay current with any new technology or codes related to the building/construction industries.

When the Carpentry course is completed, you will have the ability to write clear, concise, legible, and accurate technical reports, communicate orally in the language of the construction industry to customers, co-workers and supervisors, perform basic manipulative skills of the trade, interpret plans, drawings, codes and specification, lines, symbols and abbreviations on working drawings or blueprints, and analyze specifications and contract drawings.



## Certifications Offered

OSHA- 10  
Step Ladder  
Single Extension Ladder  
Articulated Ladder  
Mobile Ladder

## Career Possibilities

Self-Employed Contractor  
Construction Inspector  
Carpenter  
Roofer  
Construction Laborer  
Patternmaker  
Drywall Inspector  
Insulation Worker  
Roofer Apprentice  
Carpenter Apprentice

**MEASURE TWICE**



**CUT ONCE**

# Collision Repair Technology

PDE Approved Program of Study - CIP Code 47.0603

## Certifications Offered

Bolted-On Exterior Panels Part 1 I-CAR  
Bolted-On Exterior Panels Part 2 I-CAR  
Hazardous Airborne Pollutant Reduction  
Hazardous Material Storage and Disposal  
Intro to Collision Repair Process Overview  
Intro to Mechanical Repair Terms and Vehicle Protection  
Intro to Mechanical Systems Terminology Part 2  
Intro to Refinishing and Corrosion Protection Part 1  
Intro to Refinishing and Corrosion Protection Part 2  
Intro to Safety Systems I-CAR  
Intro to Vehicle Parts Terminology - Part1  
Intro to Vehicle Parts Terminology - Part2  
Intro to Tools, Equipment and Attachment Methods Part 1  
Intro to Tools, Equipment and Attachment Methods Part 2  
Intro to Vehicle Construction Materials I-CAR  
Refinishing Equipment  
Removing and Installing Exterior Trim, Pinstripes and Decals  
Removing and Installing Hardware  
Interior Trim I-CAR

## Career Possibilities

Estimator  
Refinisher Technician  
Alignment Technician  
Welder/Fabricator  
Owner/Operator  
Shop Manager  
Fiberglass Repairer  
Paint Preparer  
Automotive Body and Related Repairers  
Automotive Class Installers and Repairers



**Instructor: Mr. Albert Kollinger III**

Most of the damage resulting from everyday vehicle collisions can be repaired, and vehicles can be refinished to look and drive like new. A Collision Repair Technology repairer straightens bent bodies, removes dents, and replaces crumpled parts that cannot be fixed. They repair all types of vehicles, and although some work on large trucks, buses, or tractor-trailers, most work on cars and small trucks. They can work alone, with only general direction from supervisors, or as specialists on a repair team. In some shops, helpers or apprentices assist experienced repairers.

Each damaged vehicle presents different challenges for repairers. Using the broad knowledge of automotive construction and repair techniques, Collision Repair Technology repairers must decide how to handle each job based on what the vehicle is made of and what needs to be fixed. They must first determine the extent of the damage and order any needed parts.

The Collision Repair Technology 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 windows, 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 auto body structures using hydraulic jacks and pulling devices; and file, grid, sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat.





# Commercial Art & Design

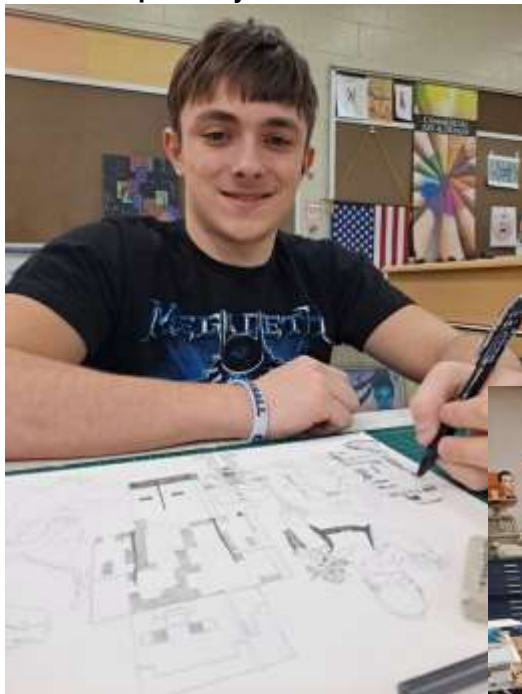
PDE Approved Program of Study - CIP Code 50.0402

**Instructor: Mr. Francis Mano**

Commercial Art & Design is an instructional program in applied visual arts. The program prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of media. Commercial Art includes instruction in concept design, layout, airbrush and techniques such as engraving, 3-D design, silkscreen, drawing, cartooning, painting, and computer graphics.

Training in Commercial Art includes an awareness of careers available to the student derived from many Units of Instruction. Students are first taught basic skills and development of vocabulary and techniques. As students enter their senior year, they define these skills and may choose to specialize in one area of study while still receiving instruction in other areas.

This class is geared for the advertising artist, one who enjoys art and would possibly consider art as a career.



## Career Possibilities

Advertising Artist

Animator

Art Director

Cartoonist

Costume and Mask Designer

Floral Designer

Graphic Designer

Illustrator

Interior Decorator

Photographer

Printing Layout Artist

Sculptor

Sign Artist

Tattoo Artist

Type Setter

# Cosmetology

PDE Approved Program of Study - CIP Code 12.04401

## Certifications Offered:

S/P2- Cosmetology

Cosmetologist

Nail Technician

## Career Possibilities:

Manicurist

Salon Owner

State Board Inspector

Beauty School Instructor

Hair Stylist

Salon Manager

Vocational Instructor

Men's Hair Stylist

Skin Care/Make-Up Technician

## Units of Instruction:

Sanitation/Safety

Hair Styling/Hair Coloring

Scalp Treatment

Manicuring

Facial Massage

Cosmetology Theory

Chemical Applications

Personal Preparation

Business Ethics

Hair Pressing

**Instructor: Mrs. Dolores Mason**

**Instructor: Mrs. Laurie Conti**

**Instructor: Mr. Dominic Darenkamp**

Cosmetology is a three-year program designed to train students to learn a variety of services related to the care of hair, skin, and nails. Students are expected to have strong attendance to become eligible to take the Pennsylvania State Board of Cosmetology Exam. Instruction includes the latest techniques in hair cutting, styling, chemical applications, coloring, and Esthetics. Manicuring, pedicuring, make-up, and ethnic haircare are included. Specific instruction of sanitation and disinfection will be presented to follow the steps that address the specific tasks according to Pennsylvania State Laws and Regulations. Students will be introduced to Employment Skills, Salesmanship, and Business Ethics necessary for professional development. The State Exam preparation curriculum will follow guidelines set for Pennsylvania State Board of Cosmetology Regulations. According to the PA State Board of Cosmetology, students must have met the mandatory hours to take the State Board Exam and complete 1250 hours for licensing.



# Culinary Arts

PDE Approved Program of Study - CIP Code 12.0508

**Instructor: Mr. Benjamin Piper**  
**Instructor Aide: Ms. Evie Jankowski**  
**Instructor Aide: Mr. Jon Kaszer**

Culinary Arts 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. Instructional skills are provided to individuals desiring to become employed in all areas of the food service industry at entry level.

Students choosing to take the “ServSafe” Food Safety Certification class may receive college credit for attaining “ServSafe” certification and will qualify to apply for the Pennsylvania Department of Agriculture State Food Safety Certification.



## Certifications Offered:

ServSafe

OSHA

S/P2- Culinary

## Career Pathways:

Dietician and Nutritionist

Cashier

Sous Chef

Restaurant Worker

Waiter/Waitress

Food Beverage Manager

Chef/Head Cook

Caterer/Hot/Hostess

Combined Food

Preparation/Servers

General Food Preparation

Worker

## Units of Instruction:

Recipes/Menu Planning

Large/Small Equipment

Restaurant Service

Sanitation/Safety

Baking

Receiving and Shipping

Hot and Cold Food  
Preparations

# Diversified Occupations

PDE Approved Program of Study - CIP Code 32.0105

**Instructor:** Mrs. Elizabeth Lanshcak

Diversified Occupations (D.O.) is a one-year instructional program in partnership with business and industry that helps to prepare students for their individualized career goal. While students obtain technical knowledge and work skills as a paid experience at our partnered employer site four days a week, the 'soft skills' curriculum, i.e., portfolio development, financial literacy, OSHA, and other industry credential training will be taught at BCCTC during in-person instruction one day a week. This on-the-job experience is an opportunity for high school seniors to prepare for life after graduation following a structured, supervised apprenticeship by both the employer and a state certified Diversified Occupations instructor. Maintaining employment and class attendance are a must for the successful completion of the course requirements.

Diversified Occupations is designed to provide training in a skilled trade profession that is not currently being offered as a program at BCCTC. Students interested in enrolling in Diversified Occupations will be required to be supervised at the work site by the employer, expect regular visits by the D.O. instructor, attend prescheduled instruction, complete all required academic coursework, and be employed at minimum of 15 hours per week, during or after school hours.

## Credentials Offered

- Employability Skills
- OSHA-10 Certification
- CPR
- CDA (Early Childhood Education Track)



# Electrical Occupations

PDE Approved Program of Study - CIP Code 46.0399

## Certifications Offered:

OSHA- 10  
Step Ladder  
Single Extension Ladder  
Articulated Ladder  
Mobile Ladder  
S/P2- Construction

## Career Pathways:

Electrical Sales/Electrical  
Apprentice/Electrical  
Inspector/Electrical Contractor  
  
Electricians/Electrician Helpers  
  
Electrical Contractor/Telephone  
Installer  
  
Electronic Home Entertainment  
Installer/Repairer  
  
Electric Motor/ Power Tool/ and  
Related Repairers  
  
Telecommunications Equipment  
Installer/Repairer/Commercial and  
Industrial Equipment

## Units of Instruction:

Occupational Introduction/Load  
Center Changes/Safety  
  
National Electrical Code NEC  
  
Trade Information/Wiring  
Methods/Shop Equipment/Conduit  
Bending/Basic Electrical Theory  
  
D.C. Circuits/A.C. Circuits/Pipe  
Threading/Conductors/Specialty  
Tool/ Running Wire  
  
Low Voltage Wiring/Blueprint  
Reading

**Instructor: Mr. John Macuga**

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, AC motors, and electrical distribution panels. Instruction emphasizes practical application of mathematics, science, circuit diagrams, use of electrical codes, and includes sketching and other subjects essential for employment in 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 area also critical components of the program.



# Graphic arts & printing

**PDE Approved program of study - CIP Code 10.0399**

The Graphic Art and Printing program 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, press work and bindery as well as photography, flexography, lithography, photoengraving and other graphic arts techniques. Emphasis is on the typographical layout and design using computer graphics, phototypesetting, camera and plate making, offset preparation and operation, paper cutting, ink and color practice, dynamics, and screen-printing production.

The Graphic Arts and Printing program (GAP) offers juniors and seniors hands-on instruction and career-related experiences in the graphic arts and the printing industry. The GAP program is focused on the foundational skills of design and industry-standard design software. Students learn the essential elements and principles of design, color theory, typography, Pre-Press, Printing, Binding, and Finishing.

Graphic Designers will convert an idea into a visual solution through advertising campaigns, presentations, marketing, and page layout. In addition to design, students in the GAP program learn the skills associated with pre-press, printing, binding, and finishing. Graduates of the GAP program are prepared to enter the field in an entry-level position or move forward with a post-secondary option.

**Instructor: Ms. Nicole DeMark**

**Assistant: Mrs. Susan Mano**

**Certifications:**

**Adobe Creative Instructor**

**Apple Teacher**

**ASPA Certified**



## Credentials

Adobe Certified Associate

Cybersecurity Essentials

for work training

OSHA10-general industry

American Screen Printing Associates

PrintED

## PROFESSIONAL ASSOCIATIONS

ASPA

American Screen Printing Association

GAA

Graphic Arts Association

PrintED

## Career Pathways

Graphic Designer  
Pre-Press Technician  
Desktop Publishing  
Press Operator  
Screen Printing  
Binding and Finishing  
Photography  
Illustration

# Greenhouse/Landscaping

PDE Approved Program of Study - CIP Code 01.0601

## Certification Offered:

OSHA Certification - Agriculture  
PA Pesticide Applicator Certification

## Career Pathways:

Landscape Design

Floral Designers

Nursery & Greenhouse Manager

Retail Manager

Floral/Nursery Sales

Greenhouse/Nursery Worker and  
Gardener

Landscaping and Groundskeeper

Lawn Care Manager

Tree Trimmers and Pruners

## Units of Instruction:

The National FFA Organization

Floral Construction and Design

Greenhouse Crop Production

Small Gasoline Engine Repair

Landscaping/Landscape Equipment  
Handler

Small Business Entrepreneurship

Pesticides/Fertilizer/Plant and Soil  
Science

**Instructor: Mr. Bryan Lehocky**

The Greenhouse/Landscaping program will be a benefit to any student pursuing any of the horticulture careers such as floriculture, landscaping, and greenhouse/nursery.

All students are trained in a general curriculum, studying subjects such as plant growth and identification, soil science, greenhouse management, and small business development. Students interested in floriculture will concentrate their time in the greenhouse working with flowers and houseplants. In addition, students will work with the arrangement of flowers and other decorative materials, constructing projects such as centerpieces, corsages, and wreaths.

Those interested in landscaping and mechanics will specialize in the repair and maintenance of small engines, construction of landscaping projects, hardscaping, and operation of horticulture equipment on the Beaver County CTC property.

The Beaver County CTC has an active chapter in the National FFA Organization in which all students are urged to actively participate.







# HVAC-R

PDE Approved Program of Study - CIP Code 47.0201

## Certifications Offered:

EPA 608 Certification  
Step Ladder  
Single Extension Ladder  
Articulated Ladder  
Mobile Ladder  
OSHA-10- Construction

## Career Pathways:

Mechanical Engineer  
Vocational Education Teachers,  
Secondary School  
Cost Estimators/HVAC Contractor  
Sales Representatives, Mechanical  
Equipment/Supplies  
Heating/ AC and Refrigeration  
Mechanic/Installer  
Helpers – Installation, Maintenance  
and Repair Workers  
Sheet Metal Workers/Piper Fitters

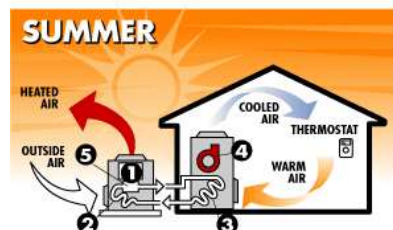
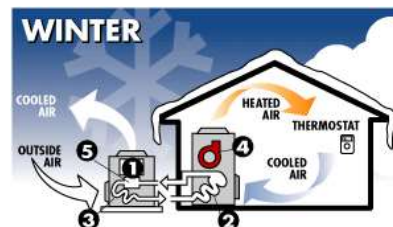
## Units of Instruction:

Basic Electricity/Controls  
Leadership Competencies/Domestic  
Refrigeration  
Commercial Refrigeration/Heat  
Pumps  
Hydronic Heating/Basic Refrigeration  
Sheet Metal Fabrication  
Air Treatment/Distribution  
Basic Refrigeration/Job Seeking  
Techniques  
Entrepreneurship/Customer Service

**Instructor: Mr. Daniel Ostronic**  
**Assistant: Mr. Greg Wilber**

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

Students enrolled in the class learn basic electric as it applies to the electrical power sources and circuits used in heating and air conditioning and refrigeration equipment. Various hands-on training simulations are used to teach basic repair and maintenance of equipment. Students will learn to solder and braze as well as use other forms of connections for copper tubing refrigerant lines. Instruction also includes design and fabrication of cut work, blueprint reading wiring diagrams, and installation of electrical hook ups to power sources. The students will also use acetylene torches, electrical meters, compound gauges, and other field related hand tools to remove and/or replace parts in any heating, air conditioning and refrigeration equipment.



# Logistics & Materials Management

PDE Program of Study  
CIP Code 52.0203

Instructor: Mr. Christopher Graham  
Warehousing & Distribution



## Units of Instruction:

Warehouse Safety & Ergonomics  
Inventory Management  
Procurement/Buying Operations  
Receiving  
Stocking and Put-Away  
Order Fulfillment  
Packing  
Shipping & Transportation  
Material Handling Equipment  
Industry Trends & Technology  
Logistics & Supply Chain Management  
Economics  
Management

## Career Pathways:

Material Handling Machine Operators  
Shipping & Receiving Clerks  
Transportation Managers/Workers  
Transportation Supervisors  
Storage & Distribution Managers/Workers  
Storage & Distribution Supervisors  
Supervisors, Laborers and Material Movers

## Certifications Offered:

Certified Logistics Associate (CLA)  
Certified Logistics Technical (CLT)  
Forklift Operator  
OSHA 10-Hour General Industry

## Employability Skills Trainings:





The Logistics & Materials Management class is an instructional program that prepares individuals to manage and coordinate logistical functions in an enterprise and to undertake the responsibilities associated with receiving, storing, shipping, controlling, and distributing products and materials and the various systems and record keeping pertaining to these operations.

Students will be instructed in the use of storage space, inventory control and shipping and receiving practices; equipment such as forklifts, conveyors, hand trucks, carts and other devices used to transport materials and/or supplies to various destinations; and the various types of packaging techniques necessary for safe transport of goods.

Students will learn the many types of documents used in logistics such as purchase orders, invoices, bills of lading, requisitions, and quotations. Students will also be instructed in the areas of transportation and traffic which will cover freight rates and tariffs, freight classification rules and freight rate analysis.

# Machine Tool Technology

PDE Approved Program of Study - CIP Code 48.0501

**Instructor: Mr. George Metz**

The Machine Tool Technology is an instructional program that prepares individuals to apply technical knowledge and skills in all aspects of shaping work dimensions, speeds of machining, bench work and the saws, shapers, drills and computer 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.



## Certifications Offered:

**NIMS Level Machining Skills**

**OSHA**

## Career Pathways:

Heat Treating, Annealing, and Tempering Machine Operators and Tenders, Metal and Plastic

Heat Treating Equipment Steers, Operators, and Tenders, Metal and Plastic

Combination Machine Tool Setters and Set Up Operators, Metal and Plastic

Tool and Die Makers

Grinding, Honing, Lapping and Deburring Machine Set-Up Operators

Lathe and Tuning Machine Tool Setters, Operators and Tenders, Metal and Plastic

Sawing Machine Operators

## Units of Instruction:

Shop and Machine Safety

Radial Arm Drill Presses

Manual Milling Machine

CNC Lathe

Computer Aided Manufacturing (CAM)

CNC 4-Axis Vertical Machining Center

Grinders and Saws

Manual Engine Lathe

Shaper

Layout



# Veterinary Assistant

PDE Approved Program of Study - CIP Code 51.0808

**Instructor: Mrs. Stephanie Vuckovich**  
**Assistant: Mrs. Alaina Prendergast**



## Certifications:

Fear Free  
Approved Veterinary Assistant  
OSHA

## Career Pathways:

Veterinary Technician/Veterinary  
Technologist

Veterinarian

Zoologist

Wildlife Biologist

Laboratory Animal Technician

Agriculture and food Scientist

Laboratory

## Units of Instruction:

Medical Terminology  
Anatomy and Physiology  
Common Diseases of Companion  
Animals

Animal Restraint and Behavior

External Parasitology

Surgical Assisting Procedures

Pharmacy Procedures

Radiology Assisting Procedures

Veterinary Laws, Regulations and  
Ethics

Medical Records

Physical Examination Procedures

Animal Nursing Skills

Veterinary Sanitation and Aseptic  
Technique

Laboratory Procedures

Therapeutic Techniques and Grooming

Zoonotic Diseases

Veterinary Assistants provide care for animals in laboratories, veterinary hospitals, and clinics. Veterinary Assistants perform routine tasks under the supervision of animal scientists, veterinarians, and veterinary technologists and technicians. They also play an integral role in the veterinary practice.

The Veterinary Assistant program prepares students to work in an entry level position in a veterinary practice. This program also provides a solid educational foundation in preparation for a post-secondary Veterinary Technology degree.

The responsibilities of the Veterinary Assistant are as follows:

- Restraint of patients during veterinary procedures.
- Clean and maintain kennels, examination, and operating rooms to control the spread of disease.
- Fill medication prescriptions ordered by the veterinarian.
- Assist veterinarians in examining animals to aid in the diagnosis of disease.
- Administer oral and topical medication.
- Prepare examination or treatment rooms to ensure they are stocked with appropriate supplies.
- Clean, maintain, and sterilize instruments or equipment.
- Monitor animals recovering from surgery and notify the veterinarian of any unusual changes or symptoms.
- Observe and monitor animals to detect behavioral changes or clinical symptoms that could indicate illness or injury.
- Perform hygiene-related duties, such as grooming, clipping coats and toenail trims.
- Educate or advise clients on many aspects of animal health care.
- Collect laboratory specimens, such as urine and feces for testing.
- Nutrition and feeding of patients.
- Perform routine laboratory tests or diagnostic tests, such as blood chemistries and complete blood counts.
- Perform office reception duties, such as scheduling appointments or helping customers.
- Perform various accounting duties, such as invoicing and maintaining inventories.

# Welding

PDE Approved Program of Study - CIP Code 48.0508

**Instructor: Mr. Carl Cosentino**

Welding is the most common way of permanently joining metal parts. In this process, heat is applied to metal pieces, melting and fusing them to form a permanent bond. Because of its strength, welding is used in shipbuilding, automobile manufacturing and repair, aerospace applications, and thousands of other manufacturing activities. Welding also is used to join beams when constructing buildings, bridges and other structures and to join pipes in pipelines, power plants and refineries.



## Certifications Offered:

SMAW 1G 7018 D1.1 Code

SMAW 2G 7018 D1.1 Code

SMAW 3G 7018 D1.1 Code

SMAW 4G 7018 D1.1 Code

FCAW 1G D1.1 Code

FCAW 2G D1.1 Code

FCAW 3G D1.1 Code

FCAW 4G D1.1 Code

## Career Pathways:

Metal Fabricators, Structural Metal Products

Millwrights

Structural Iron and Steel Workers

Sheet Metal Workers

Welding Machine Setters and Set-Up Operators

Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

Welders, Cutters, Solders, Braziers

Welders/Fitters/Cutters/Production

Welding Machine Operators and Tenders  
Signal and Track Switch Repair

## Units of Instruction:

Write clear, concise, legible and accurate technical reports

Communicate in the language of the construction industry

Perform basic manipulative skills of the trade

Interpret plans, drawings, codes, specifications, lines, etc.

Analyze specifications and contract drawings

Make accurate labor and material estimations

# Notice of Non-Discrimination

The Beaver County Career & Technology Center is an equal opportunity education institution and will not discriminate on the basis of race, color, national origin, sex and handicap in its activities, programs or employment practices as required by Title VI, Title IX and Section 504.

For information regarding civil rights or grievance procedures, contact the Administrative Director, at 145 Poplar Ave., Monaca, PA 15061 (724-728-5800). Information regarding services, activities and facilities that are accessible to and useable by handicapped persons can also be acquired from the coordinator.





2024-2025