



Berks
Career & Technology
Center 

2024 - 2025 PROGRAM OF STUDIES GUIDE

BERKSCAREER.COM

BERKS CAREER & TECHNOLOGY CENTER

OUR VISION

is to provide a safe learning environment where each student is valued and prepared to succeed.

OUR MISSION

is to prepare all students for successful careers and higher education through a highly acclaimed, integrated academic and technical education experience.

OUR COMMITMENT TO QUALITY



Berks Career and Technology Center is registered as an ISO 9001 Quality Management System (QMS) organization for its commitment to providing high quality career and technical education to its customers. ISO 9001 is an international quality standard for business and education that demonstrates commitment to producing a quality product or service and providing customer satisfaction.



Berks Career and Technology Center is accredited by the Middle States Association Commission on Secondary Schools.

BCTC offers career and technical education with the support of the following sponsoring School Districts:

Antietam
Boyertown Area
Brandywine Heights Area
Conrad Weiser Area
Daniel Boone Area
Exeter Township
Fleetwood Area
Governor Mifflin

Hamburg Area
Kutztown Area
Oley Valley
Schuylkill Valley
Tulpehocken Area
Twin Valley
Wilson
Wyomissing Area

BERKSCAREER.COM



BCTC.CE



berkscareerandtech



BerksCareer



Berks Career & Technology Center

About Our School 2

Application & Admissions,
9th Grade Early Admissions 4

Tuition, Program Costs,
& Scheduling Options. 5

Certificates of Competency
Industry Licensing & Certifications
Links to College 6

Student Services 7

Student Organizations 8

Dual Enrollment Opportunities

Technical Academy 10

Teacher Academy
Penn College Dual Enrollment 11

Career Clusters & Programs

Diversified Occupations (E) 12

Business & Information Technology

Business Management
& Entrepreneurship (W) 14

Computer Systems
Networking & Security (E) 15

IT Programming (W) 16

Communications

Advertising Art & Design Technology (W) . . 18

Video & Media Content Production (W) . . . 19

Construction

Building Construction Occupations (E) 21

Cabinetry & Wood Technology (E) 22

Carpentry (E) 23

Electrical Occupations (W). 24

Heavy Equipment Operations (E) 25

Horticulture (E). 26

HVAC / Refrigeration (E) 27

Masonry (E) 28

Painting & Decorating (E). 29

Plumbing & Heating (E). 30

Engineering & Manufacturing Technology

Mechatronics Engineering Technology (W). . 32

Drafting Design Technology (W) 34

Precision/Computerized
Machining Technology (W) 35

Welding Technology (W) 36

Healthcare

Dental Occupations (E) 38

Health Occupations (W) 39

Medical Health Professions (W) 40

Sports Medicine
& Rehabilitative Therapy (E) 41

Services

Cosmetology (B) 43

Culinary Arts (B) 44

Early Childhood Education (B) 45

Protective Services
- Homeland Security (E) 46

Protective Services
- Law Enforcement (E) 47

Service Occupations (E) 48

Transportation

Automotive Collision
Repair Technology (B) 50

Automotive Technology (B) 51

Diesel Technology (E) 52

Heavy Equipment Technology (E) 53

Recreational & Power
Equipment Technology (W) 54

Continuing Education

Adult Day School, Apprenticeship Programs,
Certification Courses &
Commercial Driver's License Training 56

Customized Training Programs,
Evening Courses & Online Courses 57

Students at BCTC can choose from 35 programs of study. Graduates are well-prepared to enter the job market or go on to postsecondary education.

Note: (B) the program is offered at both campuses.
(E) the program is offered only at the East Campus in Oley.
(W) the program is offered only at the West Campus in Leesport.

Our Background

The Berks Career and Technology Center (BCTC) was founded in 1968 and is regarded as one of the premier career and technical education facilities in the Commonwealth of Pennsylvania, largely due to the outstanding performance and success of our students. BCTC operates two campuses, each situated on more than 23 picturesque acres in Berks County.

BCTC provides high-quality technical education and career preparation to meet the needs of today's high school students and adults. The school serves 16 public school districts, numerous nonpublic schools, and the citizens and businesses of the Berks County area. BCTC is governed by a Joint Operating Committee comprised of School Board Directors from each of the 16 sponsoring school districts. With campuses located in Leesport and Oley, we are conveniently located to serve our students.

Our Educational Approach

BCTC operates as a school of choice, designed for students who are seeking to enhance their educational program with a highly relevant career and technical experience that is connected directly to business and industry. More than 400 business and industry advisors review and update the school's educational program annually. The BCTC experience provides students with a blend of classroom theory, technical applications in state-of-the-art laboratories, and actual off-campus workbased experiences. Students learn technical skills and earn nationally recognized industry certifications. They apply reading, writing, mathematics, science, communications, and technology in a way that has personal meaning and career relevance. BCTC's instructors are experienced professionals with practical experience in their occupational specialties and have the ability to teach, inspire, and motivate students. The staff consists of approximately 60 professional educators and 25 instructional support personnel. Instruction is designed to meet the needs of all students.

BCTC is regarded as one of the premier career & technical education facilities in Pennsylvania, largely due to the outstanding performance and success of our students.

Our Programs

BCTC offers seven career clusters representing 35 programs. Career clusters include: Business & Information Technology, Communications, Construction, Engineering & Manufacturing Technology, Healthcare, Services, and Transportation. Additionally, each BCTC program connects to Career Pathways laid out by Career Ready Berks, leading to careers in a variety of fields.

Each year approximately 1,800 secondary and 500 adult students attend BCTC to acquire the knowledge and skills they need to be successful in a highly competitive workplace and further their education. Students can earn advanced credits through articulation and dual enrollment agreements with post-secondary institutions. All students learn advanced technical skills and earn industry recognized credentials.

State-of-the-art learning laboratories, a highly skilled faculty, and a curriculum delivered to industry and state academic standards combine to distinguish BCTC as a leading provider of career and technical education. BCTC prepares today's students for tomorrow's emerging technologies and provides them with the competitive edge needed to compete in the global marketplace.



The Educational Program

The educational program at Berks Career and Technology Center is organized around seven career clusters encompassing 35 career programs. Typically, a student enrolls in one career program as his or her major field of study that includes a core set of competencies common to the career cluster and technical competencies related to his or her specific career program. Students may continue their program of study at the postsecondary level as they advance beyond the standard secondary curriculum.

The curriculum and instruction are designed to meet the educational needs of the students. Learning guides serve as the primary instructional tool. Technical content

Safety Is Our First Priority

All career and technical education instructors at BCTC implement a safety program within their particular program areas. To supplement that safety program, students enrolled in an approved career and technical education program at BCTC may complete an OSHA 10-Hour General Industry, Health, or Construction Industry course. This course is web-based and can be completed on-line whenever and wherever Internet service is provided.

Upon successful completion of the course, students earn and receive an OSHA credential from the Federal Occupational Safety and Health Administration (OSHA) Training Institute. This course is designed to teach entry level workers how to stay safe in the workplace and begin to prepare them for a safe and prosperous future in their chosen careers. By providing our students with fundamental safety knowledge needed in the workplace, we place safety as our first priority. Students must successfully complete the on-line 10-hour safety course or a remedial BCTC safety course to continue in their CTE program at BCTC the following year.

By completing the appropriate CareerSafe Online Course, students will:

- Develop a safety mindset and learn valuable skills for their futures.
- Earn an OSHA safety credential; an OSHA wallet card that demonstrates to employers that they have received basic safety training needed in the workplace.
- Become employable, gaining a competitive advantage in the job market.

is taught using a “hands-on” project-based approach combined with theory, classwork, and homework. Academic content is taught in the context of the technical curriculum using applications methodology. Through this instructional approach BCTC attempts to accommodate and ensure the success of all learners.

35 PROGRAMS IN 7 CLUSTERS

BUSINESS & IT

COMMUNICATIONS

CONSTRUCTION

ENGINEERING & MANUFACTURING

HEALTHCARE

SERVICES

TRANSPORTATION

Who May Apply to BCTC

Students in grades 10, 11, and 12 who reside in any of the 16 participating school districts may attend BCTC. Students must complete the BCTC application process to be considered for admission. They may obtain an application from the school counselors at their school, or by contacting the BCTC Student Services Office at either campus. Students must complete the application and return it to their counselor as a first step in the application process. Please refer to the "Application Deadline" section.

How Admission is Granted

Enrollment at BCTC is limited, therefore, each applicant is evaluated based on the information provided in the application with the most qualified applicants granted admission until all openings in that program are filled. The remaining applicants are then placed on a waiting list for potential placement as openings occur in those programs. A grade report and 8th grade PSSA scores (if applicable) and/or Keystone scores must be submitted with the application package to be considered for admission.

Applications from students with exceptionalities or disabilities will be received, processed, and responded to in the same manner as all other applications. Final selection of all students is contingent upon the final approval of the participating sending school district.

If You Don't Attend Public School

Students who live in Berks County and attend parochial or private schools or are home-schooled are also welcome to attend BCTC. These students need to contact the superintendent's office of the school district in which they reside to obtain enrollment procedures. With authorization from their Cyber or Charter School, high school students who attend these schools may apply to BCTC. Those students should contact the Director of Finance at BCTC to start that process.

Application Deadline

Because there are a limited number of openings each year, students should have their application on file at their school district by mid-November to be considered for our first-round selection process for the following school year. Rolling applications will be considered based on available space.

9th Grade Early Admissions

All of BCTC's approved career and technical education programs are designed to be completed in three years. However, students with an Individualized Education Plan (IEP) and having the school district's recommendation may be considered for enrollment in the 9th grade Early Admissions program.

The 9th grade Early Admissions program can provide a career development experience over four

years, allowing these students to begin their career and technical education a year earlier. All program experiences offer students the opportunity to develop critical skills through a combination of classes and hands-on learning experiences, which allow students to apply academics to real-world problems.

Student acceptance will be based on interest, aptitude, ability, and IEP team recommendation. Additionally,

applicants do not need to complete an interest essay as part of the application. Instead, applicants will meet with a BCTC Educational Facilitator.

Please note, the 9th grade Early Admissions program is a unique opportunity for 9th grade students; therefore, it is limited to a specific number of programs from year to year.

Program Entrance Requirements:

- Program based on space availability
- Current 8th grade students with an IEP
- Student placement aligned with IEP transition plan and district recommendation

Program Entrance Recommendations:

- Ability to read, write and apply math at or near grade level
- Self-disciplined and able to follow directions and established rules
- Ability to work independently and stay "on task"
- Ability to get along with others and work as a team member
- Ability to adapt to new learning experiences



Tuition & Program Costs

Tuition-free public education is provided to high school students through the tax support of citizens and businesses from each of the 16 Berks County school districts. Adult students are required to pay tuition based on an annually approved tuition rate. Students are required to purchase uniforms, books/workbooks, tools and personal protective equipment, and may be required to pay for certification testing fees and college dual credit courses. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Schedule

Generally, the school day is divided into two sessions. The morning (AM) session operates from 7:45 a.m. to 11:00 a.m. and the afternoon session (PM) operates from 11:45 a.m. to 3:00 p.m. These times will vary based on district transportation schedules and other scheduling variables. Every attempt is made to accommodate the scheduling needs of all students who attend BCTC.

Session assignment is based on a student's overall schedule, the district in which he/she resides, and available openings. Therefore, students will attend either the AM or PM session at BCTC and the other half day at their high school.

Students can attend for one, two, or three years; however, most students enter in 10th grade and stay for three years. A 9th Grade Early Admissions option is available for students with an Individualized Education Plan (IEP). A three-year program provides the best opportunity for students to complete the curriculum, acquire advanced credit at a post-secondary institution, and obtain industry-recognized licenses or certifications.

Several Industry Certifications offered through BCTC career and technical education programs have mandatory hour requirements. Most students who attend BCTC for a minimum of 2.5 hours per day and have very good attendance will be able to meet the industry certification hours requirements; however, since sending district schedules vary, students are encouraged to discuss their district BCTC schedule with their counselor to determine whether or not sufficient hours will be attainable to meet the program specific industry certifications.

Tuition-free public education is provided to high school students through the tax support of each of the 16 school districts.

CERTIFICATES OF COMPETENCY

BCTC Certificate of Achievement

Students earn a school-issued certificate of achievement when they successfully complete the program's task list and the end of program assessment.

Together these documents are valuable credentials that students present to post-secondary education institutions and prospective employers as evidence of their knowledge and skills. Employers and education institutions recognize the certificate of achievement and task grid as reliable indicators of an applicant's readiness for work or continued learning.

Pennsylvania Skills Certificate

The Pennsylvania Department of Education requires students to take a final exam for their chosen program as a senior. The National Occupational Competency Testing Institute (NOCTI) test or an equivalent exam will be administered in the spring of the senior year. Students will be provided with copies of their test scores and those who score at the advanced level will be awarded a Pennsylvania Skills Certificate recognizing their achievement. All students receive their high school diploma from their resident school districts.

INDUSTRY LICENSING & CERTIFICATIONS

The workplace of today requires a highly skilled and competent workforce. In order to ensure quality, many industries have developed nationally recognized standards of performance. These standards are measured by licensing examinations or certification testing programs that can lead to nationally recognized credentials. Most of the career and technical programs at BCTC have undergone a rigorous accreditation review process and now offer industry recognized certifications for students. These certifications /credentials are portable and recognized nationally by industry. They provide a competitive edge when applying for employment and are recognized by many colleges for awarding advanced credit.

Please refer to the "industry certification" heading under each program description for a complete listing of industry certifications that a student is required, expected or may have an option to earn. State regulations require all students completing an approved career and technical program to earn industry recognized certificates or licenses.

LINKS TO COLLEGE

College is an option for BCTC students. In fact, a large percentage of BCTC students continue their education at two and four year colleges/universities, apprenticeship programs and other post-secondary schools. BCTC participates in the Statewide SOAR (Students Occupationally and Academically Ready) program with the Pennsylvania Department of Education and state colleges/universities. The mission of SOAR is to prepare students for college and careers in a diverse, high performing workforce.

SOAR is a career and technical educational plan that articulates the secondary career and technical programs to postsecondary degree, diploma, or certificate programs. SOAR programs lead students into a pathway that align the secondary courses to a post-secondary program

to complete a degree or certificate. Many colleges and universities give college credits for BCTC learning experiences.

SOAR is built on a course of study which incorporates secondary education and post-secondary education elements and includes 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 post-secondary institutions.

To learn more about the participating schools and credit opportunities, please visit www.PAcollegetransfer.com.

The Student Services department at Berks Career and Technology Center cooperates with participating school district counselors to coordinate school counseling and support services for students. The following services are available to students and provided by BCTC staff:

- Career Counseling
- Instructional Support
- Medical/Emergency Services
- Work-Based Learning

Career Counseling

The purpose of counseling services is to assist students in becoming successful students in school, at work, and in their communities. Individual and group counseling is available to help students plan their career paths, prepare for employment, or plan for post-secondary education. Information concerning educational and occupational opportunities is available in the Counseling Office at both campuses. BCTC strives to promote opportunities to all students.

Instructional Support

A team of instructional support professionals and paraprofessionals provide assistance to students who require additional support to satisfy the curriculum requirements. BCTC staff also teaches and reinforces academic content within the technical curriculum.

A Learning Resource Center (LRC) at each campus is provided for students to work in small learning groups and to utilize computer-assisted instruction. The goal of instructional support is to assist students to be successful in their career and technical program.

Medical/Emergency Services

Each campus has a nurse on staff to provide medical and First Aid services for students requiring medical assistance. More serious health-related issues are referred to the student's participating school district nurse, family physician, or a community agency. Students' medical health plans are communicated from the students' sending school to the BCTC nurse.



Career Opportunities

Each of these opportunities enables students to learn in an actual employment setting:

— **Cooperative Education (Co-Op) and Capstone** is designed to be a Capstone or culminating skill development program option. It is a unique plan of education that integrates classroom learning with supervised work experience in the business community. Eligible students apply for part-time employment in areas related to their chosen fields of study. Students work at approved training sites with written training plans. Eligibility to participate in co-op is determined based on grades, completion of all required industry certifications related to their program of study, attendance, a recommendation from the BCTC instructor, and over all citizenship. Co-op provides an excellent transition from high school to the world-of-work.

— **Internships** are available during the summer months and school year at selected approved sites. These short-term experiences provide opportunities for students to practice skills and learn about the requirements of the workplace. They may be paid or unpaid experiences, depending on the site.

— **Clinical** experiences are available to students enrolled in the Cosmetology, Dental Occupations, Health Occupations, Medical Health Professions, Early Childhood Education, Protective Services, and Sports Medicine & Rehabilitative Therapy programs. They are

intended to provide valuable hands-on experiences and observation of professionals. Clinical experience takes students into the actual workplace for a short period of time, whereby they perform day-to-day operations and job functions. Students must meet eligibility requirements to participate.

— **Job shadowing** is a short-term observation experience whereby 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 a variety of occupational fields. The program is designed to give students a better understanding of their career focus and help them in making career decisions.

— **Volunteer work** experience may be provided to students to supplement their CTE program. Students may receive credit for this experience toward their course grade.

High school students are encouraged to participate in athletics and extra-curricular activities at their participating high schools. In addition, students attending BCTC will have opportunities to make new friends and exercise leadership abilities in the career and technical student organizations, including the National Technical Honor Society.

Participation in student organizations and activities at BCTC fosters leadership, 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, special events and social activities.

BCTC offers the following student organizations as co-curricular programs. All students are encouraged to participate in SkillsUSA and/or one of the other career specific organizations:



FFA (Future Farmers of America) is open to students enrolled in the Horticulture and Heavy Equipment Technology programs. This co-curricular experience assists students by developing their potential for leadership, personal growth, and career success. Students participate in community service and competitions.



HOSA (Health Occupations Students of America) is open to students

enrolled in the Healthcare and Protective Service programs. Activities focus on training, developing skills, and serving others. The school's members enjoy a winning tradition of competing at annual state and national HOSA conferences.



NTHS (National Technical Honor Society) is open to 11th

and 12th grade students that meet certain requirements. NTHS encourages higher scholastic achievement, cultivates a desire for personal excellence, and helps top students find success in today's highly competitive workplace. NTHS is committed to the recognition of excellence in every arena of career and technical education – student achievement, community service, outstanding chapters, and contributions from business, industry, and educational professionals.



PBA (Pennsylvania Builders Association) is a student chapter

affiliation of the Pennsylvania Builder's Association and the National Association of Home Builder's (NAHB) and is open to students enrolled in construction programs. The goal of this student organization is to promote a greater understanding of the construction trades; exposure to innovative products and processes, industry field trips, guest speakers, leadership, competition to showcase skill development, and service.



SkillsUSA emphasizes respect for the dignity of work, high standards and trade ethics, workmanship, scholarship, safety, and partnership with business. Students may participate in district, state, and national competitions as well as leadership opportunities and community service. All students are eligible to participate in SkillsUSA and/or one of the other career specific organizations.



VEI is a live, in-school global business simulation and entrepreneurship program that is part of a global network of student-run businesses in over 40 countries. VEI replicates all the functions of real businesses in

both structure and practice and brings the workplace into the classroom. The program transforms high school students into independent-thinking business professionals and tests their abilities through various competitions during the year. Students will develop and maintain e-commerce businesses and be responsible for developing marketing strategies, product design, collaborating with students from other BCTC programs, forecasting sales, managing the profit/loss statement, and implementing both social and ethical business practices. This program engages students in their learning, and prepares them for college and career success by providing them with relevant, hands-on opportunities to develop, test, and apply academic, business, financial, and entrepreneurial skills.





Dual Credit Opportunities

Business & Information Technology Cluster

- Business Management & Entrepreneurship
- Computer Systems Networking & Security
- IT Programming

Engineering Technology Cluster

- Mechatronics Engineering Technology

Services Cluster

- Teacher Academy

Partnership Programs



Pennsylvania College of Technology
A Penn State Affiliate



PennState Berks





Business & Information Technology Cluster

- Business Management & Entrepreneurship
- Computer Systems Networking & Security
- IT Programming

Engineering Technology Cluster

- Mechatronics Engineering Technology

Berks Career & Technology Center, Reading Area Community College (RACC), and Penn State Berks have partnered to create the Technical Academy.

The Technical Academy provides college-bound students with the opportunity to develop advanced technical skills and earn college credit toward an associate and/or bachelor's degree while still in high school. Students in the Technical Academy are expected to continue their study through an associate degree at RACC.

The Academy Provides:

- A pathway for developing advanced skills toward an associate and/or bachelor's degree.
- The opportunity to earn college credits toward a degree while still in high school.
- Highly selective programs that have strict entrance criteria.

Academy Students:

- Are enrolled at BCTC and RACC while in high school.
- Can enter the workforce at multiple points prior to earning a degree.
- Will earn recognized industry certifications.
- Will prepare for jobs that are in high demand.

GET A JUMP ON COLLEGE!

- Earn college credits toward an associate and/or bachelor's degree while still in high school.
- Depending on the program selected, students may complete up to six college courses at BCTC during the first and second year of the program, earning up to 27 college credits. **The credits earned while at BCTC will be tuition free. Students will be expected to purchase textbooks and all other course materials**
- In the third year of the program, students may take an additional three courses on the RACC Campus, earning up to an additional 12 college credits while in high school (depending on the program selected).
- Tuition for the final courses taken on the RACC campus (while students are still in high school) will be the responsibility of the student/parent. Costs may be subsidized by BCTC depending on state, federal, and alternative funding sources.*

* Please talk to your school counselor about specific financial responsibility for Technical Academy courses. Let your counselor know if there is a question of financial hardship.

Entrance Requirements:

- Students must be in Grades 10 or 11 to begin a program in the Technical Academy.
- 3.0 overall GPA*
- Math Proficiency
- Reading Proficiency
- To remain in the program, students must complete a college prep academic sequence throughout high school.
- A signed Letter of Understanding to attend RACC to earn an associate degree.
- Students transitioning to RACC after graduation and completion of the Technical Academy courses will be required to complete RACC's placement assessment.

* With special permission a student may be accepted on a provisional basis with a 2.5 GPA or higher.



The Teacher Academy is a college-credit career pathway where students will be able to begin their Associate of Applied Science in Early Childhood Education (ECE) while still in high school. The classes are taught at the Berks Career and Technology Center. Students may be able to complete their AAS in Early Childhood Teaching in about a year after graduating from high school before seamlessly transitioning to Kutztown University's BSED (PreK-4 Certification) program offered right at RACC's campus.

RACC's Early Childhood Teaching (PreK-Grade 4) program is designed to prepare graduates for immediate employment in the ECE field as well as provide the first 61 credits of the bachelor's degree leading to PreK-Grade 4 Teacher certification. Graduates of this program may seek employment opportunities with Head Start and early childhood programs serving infants, toddlers, preschoolers, and school aged children. In addition, graduates may also seek employment as educational assistants or para-educators in public and private schools.

PENN COLLEGE DUAL ENROLLMENT

Penn College Dual Enrollment experience allows BTC students to explore a future career option while earning free college credits that can be applied towards one or more majors at the Pennsylvania College of Technology. Courses are taught during the day at BTC by our instructors with no tuition cost to you!

Penn College Dual Enrollment Benefits:

Save money! At Penn College, students only pay for the number of credits they take. That means that every credit earned in high school is like a \$587 scholarship to Penn College. Earning three credits saves you over \$1,700 in tuition.

Save time! The more Penn College Dual Enrollment courses you take in high school, the less time you'll spend earning a degree at Penn College if you have already taken some of the coursework through Penn College Dual Enrollment.

Connect to "the college experience." Through Penn College Dual Enrollment, you'll have the chance to visit Penn College, see its facilities, meet college faculty, and become familiar with college resources like Career Services and the Academic Success Center.

Build confidence in your abilities, no matter your strengths. No matter what you plan to do after graduation, if you have already shown success in college courses, you will be more competitive in both the job market and the college admissions process. Success in challenging coursework builds confidence as well as skills!

Increase your odds of success in college. Regardless of degree or major, students who graduate high school with college credits are more likely to enroll in college, stay in college after their first year, and complete their chosen degrees.

For more information, please visit:
www.pct.edu/k12-educators/penn-college-dual-enrollment

Please check individual program pages for Penn College Dual Enrollment availability.



The Diversified Occupations (DO) program combines classroom instruction with on-the-job training that aligns with the career interest of high school seniors. This unique program furthers BCTC's partnership with business and industry to foster the skills needed for today's workforce. This experience is designed to integrate classroom study focused on 21st-century skills along with a planned, supervised work experience.

Career competencies and hands-on skills are developed at the job site under the direction of a designated supervisor. Related classroom theory is offered through a hybrid model of instruction at BCTC and online. Maintaining employment and class attendance is essential to the successful completion of the course requirements.

The DO program is designed to:

1. Provide training in a career and technical area not presently being offered at BCTC or the sending high school.
2. Provide training for students who need an alternative form of education to meet their unique needs.

Students enrolled in the DO program are required to:

1. Be supervised on-the-job by a cooperating employer on a one-to-one basis.
2. Be visited on-the-job, at least once every 30 days by the Diversified Occupations coordinator.
3. Attend scheduled instruction and complete all required academic coursework.
4. Be employed at least 18 hours per week during or after school hours.

Instruction in the DO program encompasses the competencies necessary to succeed in today's world-of-work. Learning activities based on career planning and development are generated through hybrid instruction.

What You'll Learn:

1. Career Development and Planning
2. Employment Acquisition
3. Human Relations
4. Health and Safety
5. Employment Retention
6. Communications Development
7. Legal Awareness
8. Consumer Skills
9. Economics
10. Future Planning
11. Technical-Related Instruction

Industry Certifications:

OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

- Transportation required for all work experiences
- Must be entering final year of high school
- Purchase of uniform may be required by employer

Program Entrance Recommendations:

- Obtain employment before the start of the school year
- Ability to read, write, & apply math skills to real-world settings
- Ability to work independently & on a team
- Ability to follow multi-step directions
- Excellent work ethic



Business & Information Technology

From small businesses to large global corporations, Business and Information Technology plays a critical role in an organization's continual growth and cutting-edge innovation, providing a platform that drives business success. At BCTC, students can select from Business Management and Entrepreneurship, IT Programming, or Networking & Security to challenge and prepare them for the global demands within an ever-changing industry. If you are driven to succeed, then your future starts here at BCTC.

**Business Management
& Entrepreneurship**

**Computer Systems
Networking & Security**

IT Programming



Career Pathways:

Management Analyst | Financial Manager | Human Resources Specialist
Operations Research Analyst | Accountant | Market Research Analyst
Product Manager | Business Operations Manager

Creating a generation of young people with the skills, knowledge, and drive to become business leaders and entrepreneurs... The Business Management & Entrepreneurship program places emphasis on college and career (BME) readiness. The program offers students a competitive edge through project-based, collaborative learning and the development of 21st Century skills including business management, entrepreneurship, financial literacy, technology, global awareness, problem solving, and communication. Students learn business by doing business with coaching from industry professionals.

The BME program at BCTC is part of Virtual Enterprises International (VEI). VEI is a live, global business simulation and entrepreneurship program that is part of an international network of student-run businesses in over 40 countries. VEI replicates all the functions of real businesses in both structure and practice and brings the workplace into the classroom. The program transforms high school students into independent-thinking business professionals and their classrooms into offices that become an incubator environment. Under the guidance of their instructor and local business mentors, students

create and manage virtual businesses; learning all aspects from market research, business planning, product development, production and distribution to marketing, sales, human resources, accounting/finance and web design.

Guided by a task-based curriculum, students produce the key deliverables that are required in a real business. The virtual companies the students create engage in international trade with other student-run companies on a continuous basis, participating in a global economy of over 5,000 firms. The simulation environment encourages risk-taking and continuous cycles of improvement and innovation based on successes and failures.

The program closes the skills gap, engages students in their learning, and prepares them for college and career success by providing them with relevant, hands-on opportunities to develop, test, and apply academic, business, financial, and entrepreneurial skills.

Career Pathways Can Lead To:

Chief Executives | General/ Operations Managers | Compliance Managers
Business Teachers/Post-Secondary



Qualified students are encouraged to apply as a Technical Academy student for this program. See page 10 for additional information.

Industry Certifications:

OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading proficiency
- Math proficiency
- Writing proficiency
- Ability to work independently & in a team
- Creative problem solver
- Ability to lead



Career Pathways:

Computer User Support Specialist | Network & Computer Administrator | Network & Computer Technician | Computer Network Support Specialist

Computer Systems Networking & Security is a professional course that prepares students with industry standard credentials and technical certifications to aid in their understanding of computers and the inter-working of them. While working in BCTC's state-of-the-art lab, students will use concepts introduced in theory and reinforced through a hands-on curriculum to build and repair computer systems and understand and configure components of a computer networking infrastructure.

The instruction focuses on A+ fundamentals, Operating System Fundamentals, Networking Fundamentals, Server Administration, Network Security Fundamentals, Alternate Operating Systems, and Advanced Concepts of Networking. The curriculum is reviewed annually for relevancy and updated as industry standards dictate.

Upon completion of the course, students are prepared for a variety of certification exams including the Test Out Routing and Switching Pro Certification.

Graduates of this program are well prepared for entry level employment. Additional education can lead to more opportunities in networking and information technology.

Career Pathways Can Lead To:

- Chief Information Officer
- MIS Manager
- Network Engineer
- Teledata Communications Engineer

Industry Certifications:

TestOut Routing & Switching Pro, TestOut PC Pro, TestOut Cyber Defense, TestOut Server Hybrid

Optional Certifications:

CompTIA Network+, CompTIA Security+, Cisco CCNA

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Qualified students are encouraged to apply as a Technical Academy student for this program. See page 10 for additional information.



Career Pathways: Computer Programmer | Computer User Support Specialist Web Developer

Information Technology (IT) Programming is a series of methods of collecting, compiling, and analyzing large quantities of data to satisfy our society's ever-increasing need for information. With increasing frequency it is apparent that an understanding of IT is a necessary part of general education for students who live and work in our technological society.

The curriculum is designed to provide instruction that prepares students to apply technical knowledge and skills to support problem solving and the design and development of software applications. Students acquire the skills to analyze, design, implement, test, and document an application solution. The students utilize a state-of-the-art network computer system and its associated peripheral equipment to work on live problems, utilizing business software and object-oriented integrated development environments. Concepts delivered provide the basis of

understanding in the area of computer programming and are applicable to business applications, mobile applications, and video gaming.

The course provides instruction in Visual Basic, C++, Python, C#, HTML, Java, JavaScript, Database Administration/Programming, and Microsoft Office Suite. Students also receive instruction in office procedures and customer service communications, business law and ethics, and basic computer maintenance and troubleshooting.

Career Pathways Can Lead To:

- Senior Programmer
- Programming Manager
- Systems Analyst, EDP
- Computer Center Manager



Qualified students are encouraged to apply as a Technical Academy student for this program. See page 10 for additional information.

Industry Certifications:

Internet and Computing Core Certification (IC3), OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination



Communications

Advances in technology have taken the field of communications to new and exciting levels. The Communications Cluster offers students opportunities to become immersed in many facets of communication technology. Students are given the opportunity to use their creative talents on “live” projects from inception to completion.

**Advertising Art &
Design Technology**

**Video & Media
Content Production**



Career Pathways: Graphic Designer | Desktop Publishing | Illustrator Pre-Press Technician

Graphic designers find the most effective way to visually communicate messages across advertising mediums, including print, electronic, and digital media. A variety of strategies are used to problem solve for a designer's clients that include color, typography, illustration, photography, and various print and layout techniques.

The coursework is designed to provide students with a strong foundation in the principles of design and print production through a variety of projects, including logo and stationery design, editorial layout, movie posters, magazine, newspaper, and social media advertising. Students will learn to use industry-specific software for photo manipulation, page layout, and illustration in a state-of-the-art design studio.

This program covers the following topics: fundamentals of computerized design technology, principles of typography, principles of color, product production procedures, principles of basic

photography, fundamentals of graphic design, fundamentals of illustration, electronic illustration, image manipulation, page layout, project production management, and employability skills. Students will learn from each teacher in the Communications Cluster and participate in learning experiences with students from Video & Media Content Production.

Students will leave the program with a portfolio and resume preparing them both for entry into a design focused major at a postsecondary institution and internship opportunities within the graphic design and commercial art fields.

Career Pathways Can Lead To:

- Art/Creative Director
- Display Designer
- Package Designer
- Multimedia Artist
- Web Designer

Industry Certifications:

Adobe Certified Associate in: Visual Communication, Graphic Design & Illustration, Print & Design Media Publication
OSHA/CareerSafe 10-Hour Certification

PENN COLLEGE

DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to multi-task
- Hand-eye coordination
- Artistic ability/creativity
- Self-motivation



Career Pathways:

Audio/Video Equipment Technician | Commercial / Industrial Photographer | Photographic Process Worker | Portrait / Wedding Photographer | Production Assistant | Video Camera Operator | Video Editor | Video Producer / Director

This combined program will introduce students to the art and science of digital media technology. Students will develop an understanding of the various technology and techniques used in today's communication, media, film and streaming industries. Students will gain hands-on experiences and develop technical understanding by producing digital media and content for various platforms using industry standard software, hardware and camera equipment in both studio and field environments.

The core curriculum includes training in creative development, the production cycle, TV/video/film production, photography, lighting, project management, budgeting, audio production, photo and video editing, 360-degree/VR and drone technology, distribution and streaming media. In addition, students will be educated in graphic and visual design through clustered learning experiences.

The Adobe Creative Suite, including Photoshop, Illustrator, Premiere, After Effects, and Audition, will be taught throughout the program.

This program will enhance students' writing and communication, creative abilities, problem solving, and technical/computer skills in preparation for college and employment.

Career Pathways Can Lead To:

- Audio Technician
- Cinematographer
- Communications Manager
- Photographer
- Media Specialist
- Producer/Director
- Production Manager
- Technical Director

Industry Certifications:

Adobe Certified Associate - Visual Communication, Adobe Certified Associate - Video Communication

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Read & interpret technical material at grade level
- Completion of Algebra 1
- Intermediate computer skills
- Creative/artistic ability
- Ability to work independently & in a team
- Effective communication skills
- Strong depth and color perception
- Physical stamina
- Manual dexterity



Construction

Construction and construction-related careers offer students the opportunity to take pride in creating and building a new environment or modifying an existing one. The Construction Cluster at BCTC prepares students for all of the high-demand careers in various construction and building-related industries.

Building Construction Occupations
Cabinetry & Wood Technology
Carpentry
Electrical Occupations
Heavy Equipment Operations

Horticulture
HVAC/Refrigeration
Masonry
Painting & Decorating
Plumbing & Heating



Career Pathways:

Building Maintenance Repairer | Brick Mason/Block Mason
Plumber | Carpenter | Welder | Electrician

Students in the Building Construction Occupations program build their skills from the ground up! Executing all aspects of residential and commercial construction from foundation to finish, student experiences involve the basics of several building trades including carpentry, metal fabrication, interior finishes, masonry, plumbing, and electricity. As a student in Building Construction Occupations, you will also learn to use various hand and power tools used on the job site.

Students in this program have the unique opportunity to apply their skills and knowledge with the construction of a custom-built home under the direction of their instructors. The local housing market has come to know the BCTC's student-built homes as a model of quality and craftsmanship.

Graduates of this program are prepared for employment in the construction fields or may pursue more specialized training through an apprenticeship and/or post-secondary education.

Career Pathways Can Lead To:

- Construction and Building Inspector
- Building Supervisor
- Building Trades Instructor
- Construction Supervisor
- Maintenance Supervisor

PBA – Pennsylvania Builder's Association

The Building Construction Occupations program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways: Cabinetmaker & Bench Carpenter | Woodworking Machine Setter, & Setup Operator | Patternmaker/Wood | Furniture Finisher

Cabinetry is a specialized branch of woodworking where students learn to fashion wood into objects of usefulness and beauty, such as home and office furniture and cabinets. Instruction is given in reading blueprints and planning the sequence of cutting operations to use the materials resulting in the least amount of waste. Students develop skills in the use of many hand and power tools. The Cabinetry student will train with the technology for CNC design, programming, and operations. These machinery skills have become commonplace at most manufacturing and mill shops.

Students will receive training in precision cutting, shaping, and assembling of parts through the use of hand tools, power tools, and woodworking machines. Instruction will also be provided in design and layout, assembly, hardware, finishes, and installation.

As a participant in Cabinetry and Wood Technology, students participate in the construction of the student-built house project. Its county-wide reputation for quality makes this an exceptional “live work” opportunity that will instill confidence and pride as students prepare to enter the workforce, apply for apprenticeships or continue in a technical program.

Career Pathways Can Lead To:

- Assemblers & Fabricators
- Sawing Machine Setter, Operator, & Tender, Wood
- Kitchen Salesperson
- Mill/Plant Supervisor
- Cabinetmaker Instructor
- Furniture Designer
- Cabinetry Shop Owner
- Finish Carpenter

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.

PBA – Pennsylvania Builder’s Association

The Cabinetry & Wood Technology program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

American Ladder Institute Ladder Safety Training, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC’s website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways: Rough Carpenter | Construction Carpenter (Residential) | Roofer Carpenter Assembler & Repairer – Sider

From the ground up, construct, assemble, or renovate residential and commercial structures. From framing techniques to window installation, the skills of a carpenter are endless. Students in the Carpentry program learn both types of carpentry work: rough and finish. Rough carpentry includes foundations, framing, exterior finishes, and lumber. Finish carpentry includes the installation of finished flooring, stairwork, trim, wallboards, windows and hardware.

Students in this program will also learn estimating, material identification, and the basics of both rough and finish carpentry related to residential construction,

including such areas as blueprint reading, the use of power and hand tools, framing techniques, roofing, siding, and the installation of trim and hardware.

As a participant in the Carpentry program, students have a hand in the construction of the student-built house project. Its county-wide reputation for quality makes this an exceptional “live work” opportunity that will help hone skills as students prepare to enter the workforce, apply for apprenticeships or continue in a post-secondary program.

Career Pathways Can Lead To:

Lumber Products Store Manager | Construction Supervisor | Carpentry/Millwork Instructor

NCCER – National Center for Construction Education and Research:

The Carpentry program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder’s Association

The Carpentry program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

NCCER Core, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC’s website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.



Career Pathways: Electrician | Commercial & Industrial Equipment Repairer Sales Engineer – Electrical Products

Keep society running by keeping the amps flowing. Construction and maintenance electricians ensure conductivity of electrical fixtures and equipment found in today's homes and businesses. Students in the Electrical Occupations program are provided with the skills to become both construction and maintenance electricians. Construction electricians lay out, assemble, install, and test electrical fixtures and wiring used in electrical systems on construction sites. Maintenance electricians maintain and keep many different types of electrical equipment in good working order principally by detecting and repairing defective equipment before a breakdown occurs.

The curriculum covers many areas, including: residential wiring and service, wiring alterations, installation of electrical environmental circuits, commercial and industrial wiring, electrical maintenance, planning and site work on commercial/industrial jobs and services, power distribution transformers, single-phase transformers and AC

machines, electrical motors and controls, three-phase transformers and AC machines, PLCs, electrical aspects of HVAC and related facilities, and emergency power systems. Instruction is also provided in the installation of electrical distribution systems both overhead and underground.

Students in Electrical Occupations have the opportunity to apply their skills and knowledge by helping with the construction of a custom built home under the direction of their instructors.

Career Pathways Can Lead To:

- Electrical Engineer
- Electrical Contractor
- Maintenance Supervisor
- Superintendent (Construction)
- Electrician Technician - Plant
- Electrical Contractor- Residential

NCCER – National Center for Construction Education and Research:

The Electrical Occupations program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder's Association

The Electrical Occupations program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pbuilders.org for more information.

Industry Certifications:

NCCER Core, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude
- Ability to distinguish color



Career Pathways:

Paving, Surfacing, & Tamping Equipment Operators | Operating Engineers & Other Construction Equipment Operators | Highway Maintenance Workers

The Heavy Equipment Operations Program is designed to provide students with the theory and hands-on skills relevant to the fundamentals of operation and preventive maintenance of various types of heavy equipment. Specialized classroom and lab experiences are designed to provide instruction in operation and preventive maintenance of mobile machinery used by heavy equipment operators.

Included in the course of study is an introduction to the diverse job opportunities available to heavy equipment operators. Instruction begins with job site safety, blueprint reading, equipment rigging, and other fundamentals before advancing to activities like building a pad, backfilling a trench, and slot dozing.

Students will be instructed in the proper use of equipment, basic maintenance of the machines, and will receive extensive field practice in earth moving, site-preparation, construction site layout, excavation, and backfilling of building sites. In addition, students will learn to use a laser level, hand levels, power tamping equipment, how to read blueprints, and will

become familiar with OSHA rules. Heavy Equipment Operators are employed in a variety of occupations in the construction industry, road construction, and mining.

Exercises on virtual equipment simulators are followed by plenty of practice with the real thing on an exquisite outdoor training course. Students gain real-world experience by applying the knowledge learned at an off-campus quarry site, supervised by their instructor.

Career Pathways Can Lead To:

- Agricultural Equipment Operator
- Construction Equipment Operator
- Highway Maintenance Works
- Equipment Operators
- Foreman
- Engineer

Industry Certifications:

OSHA 10-Hour, OSHA Forklift Certification (National Safety Council), Penn-Dot Flagger Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.



Career Pathways:

Nursery Worker | Floral Designer | Landscaping & Groundskeeping Worker | Horticulture & Nursery Sales | Horticulture Grower/ Greenhouse

Horticulture students pursue a career interest in any one or combination of the major areas of horticulture: turfgrass establishment and maintenance, landscape design, construction and maintenance; greenhouse crop production; and floral design.

Turfgrass establishment and maintenance is the study of turf-grasses; soil identification and amendments; seasonal lawn maintenance and installation tasks; pest control and the establishment of lawns. This discipline includes the operation of lawn equipment and small engine repair, preventative maintenance. Landscape design, construction and maintenance includes the study and maintenance of landscape design; vegetation; pruning; propagation; the installation of hardscaping, lighting, and water features; garden installation and equipment operation. Greenhouse crop production is the study of crop scheduling and greenhouse crop care and sales. Floral design includes the study of fresh, silk, and dried floral arranging; holiday and special occasion designs and work, houseplant care, operating a small business, and trends in the floral industry.

The Horticulture program features an aquaponics system. Aquaponics blends together the technology of hydroponics and fish rearing methods of

aquaculture. Based upon the nitrogen cycle, the fish produce essential nutrients for the plants, and in return, the plants filter the water. This sustainable technology allows for organic growing of crops like lettuce, radishes, tomatoes, and much more. BCTC's Horticulture program is licensed with the PA Department of Agriculture to breed fish and provide for other educational programs. Students in the program work closely with Culinary students to plan menus and schedule the crops for proper harvest. This cross collaboration helps build networking skills while implementing a 21st century business model.

Students in the program gain invaluable experience by landscaping the grounds of the student built house project, maintaining portions of the campus, creating seasonal floral arrangements for customers, working on community service projects, and engaging in the production and sale of bedding plants each spring. Students should hold interest in working outdoors, indoors, and in all weather conditions; students will get dirty and work in a physically demanding career field.

Students in the Horticulture program will become members of FFA and have an opportunity to benefit from leadership and competition activities.

Career Pathways Can Lead To:

Nursery & Greenhouse Manager | Golf Course Superintendent | Landscape Designer | Garden Center Manager
Arborist | Aquaponics | Environmental Resource Management | Sustainable Technology

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.

Industry Certifications:

PA Certified Horticulturist (PCH), PA Pesticide Applicator Certification, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways:

Refrigeration Mechanic and Installer | Heating & Air Conditioning Mechanic | Sheet Metal Worker | Energy Auditor

Keep your cool while turning up the heat! Students in the HVAC/Refrigeration program learn the theory and application of the principles involved in the conditioning of air, cooling, heating, filtering and controlling of humidity. Students develop skills in assembling and installing tubes and pipes, motors, compressors, control devices, valves and thermostats, and gain an understanding of blueprints and schematics related to equipment and systems. Students will be able to diagnose equipment malfunctions and read and understand technical reference manuals. Energy management

control technology is taught as it relates to domestic, commercial and industrial air systems, heat pumps, forced air conditioning systems and microcomputer systems control.

Graduates of this program have opportunities for entry level employment, pursue an apprenticeship, or continue their education in a technical postsecondary program.

*Mathematics - HVAC technicians are increasingly required to perform complex mathematical operations and calculations when performing work in the field. Therefore, it is highly recommended that students enter the program with a strong foundation in Algebra I and Geometry.

Career Pathways Can Lead To:

Air Conditioning and Heating Engineer | Refrigeration Engineer | Energy Management Control Engineer
Factory Service Representative | Estimator | Stationary Engineer | HVAC Contractor

HVAC Excellence: This program is accredited through HVAC Excellence to assure that the curriculum taught meets or exceeds the National Skill Standards. Having this accreditation enables BCTC to more easily articulate credits with other institutions and apply for public and private funds. Visit www.hvacexcellence.org for further information.

NCCER – National Center for Construction Education and Research: The HVAC/R program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder’s Association: The HVAC/Refrigeration program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

Student Outcome Assessment (HVAC Excellence), EPA 608 Certification, NCCER Core, Section 609 Certification for Refrigerant Recycling and Recovery, OSHA/CareerSafe10-Hour Certification, OSHA 30-hour Certification, Pennsylvania Builders, Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC’s website.

Program Entrance Recommendations:

- Reading at grade level
- Mathematics: *see note above
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways: Brick Mason/Block Mason | Tile and Marble Setter

Lay a solid foundation. Students in the Masonry program create modern masterpieces out of brick, block, concrete, or tile that will last for decades. In the program, students learn how bricklayers or brick masons repair walls, partitions, arches, fireplaces, chimneys, and other structures from brick, block, concrete, and glazed tile. They must be able to lay out jobs, read blueprints, and estimate materials and cost. Instruction in this trade includes learning skills involved in the cutting, chipping and laying of brick and concrete block, the mixing and spreading of mortar and other bonding agents, and the cutting and laying of ceramic tiles. Students will learn to use tools, such as trowels, jointers, hammers, levels,

gauge line, and squares. Knowledge of mortar, cement, and other bonding agents is important to workers in this skilled trade.

Students have the opportunity to apply their skills and knowledge by helping with the construction of a custom built home under the direction of their instructors. The local housing market has come to know BCTC's student-built homes as a model of quality and craftsmanship.

Graduates of this program are prepared to seek employment in the masonry field or may choose to pursue more specialized training through an apprenticeship and/or post-secondary education.

Career Pathways Can Lead To:

Contractor | Masonry Instructor | Estimator | Bricklayer | Cement Mason

NCCER – National Center for Construction Education and Research:

The Masonry program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder's Association

The Masonry program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

NCCER Core, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/ troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways:

Residential Painter | Paper Hanger | Furniture Finisher
Drywall Taper

Transform a structure using modern painting and design concepts. From brightening up a room to restoring a piece of furniture, learned techniques can be applied to all areas of living. Students in the Painting and Decorating program are given instruction and practical experience in all aspects of painting, staining, finishing, and wallpaper hanging. Students also learn surface stripping and preparation, brush and spray painting skills, cost estimation, furniture refinishing, color coordinating, interior decorating, faux finishing, care and use of equipment, and safety practices.

Upon graduation, students may seek employment in several areas or with further training and education may pursue more advanced career options, such as interior design and decorating.

Students have the opportunity to apply their skills and knowledge by putting the finishing touches on a custom built home under the direction of their instructors. The local housing market has come to know BCTC's student-built homes as a model of quality and craftsmanship.

Career Pathways Can Lead To:

Interior Designer	Industrial Painter
Interior Decorator	Structural Steel Painter
Painter (Maintenance)	Bridge Painter
Paint Crew Foreman	Furniture Finisher
Commercial Painter	

NCCER – National Center for Construction Education and Research:

The Painting and Decorating program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder's Association

The Painting & Decorating program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

ALA Extension Ladder Safety, ALA Step & Articulated Ladder, NCCER Core, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Ability to add, subtract, multiply fractions, read a tape measure/ruler
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.



Career Pathways:

Plumber (Construction) | Pipelayer, Pipefitter or Steamfitter
Plumber Apprentice | Oil Burner Service & Installer

Keep the flow going! Students in the Plumbing and Heating program will learn how to assemble, install, alter, and repair pipes and pipe systems. These systems are vital for all buildings to carry water, steam, air, or other liquids and gasses for sanitation, industrial and other uses. Students also learn to install plumbing fixtures, appliances, and heating systems. Safe and proper mechanical practices are essential components as they help to protect the health and wellbeing of the nation.

The hands-on approach to training will cover layout, assembly, installation and repair of pipes, fittings, and fixtures of heating, water and drainage systems according to manuals, specifications and plumbing codes. Also included are the installation, repairing, operating and testing of various types of residential and commercial heating equipment and the controls

necessary for their operation.

Real world experience is gained at BCTC's student-built house as students install and connect the plumbing, piping, heating, and fixtures required in today's homes.

Graduates of this program are prepared for entry level work, apprenticeship opportunities, and post-secondary education.

Career Pathways Can Lead To:

- Job Estimator
- Master Plumber
- Heating Engineer
- Plumbing Inspector
- HVAC Technician

NCCER – National Center for Construction Education and Research:

The Plumbing and Heating program participates in NCCER. This curricula and training process is supported by trade associations, contractors, schools, construction and maintenance users, pipeline operators, manufacturers, and third-party training providers. Visit www.nccer.org for further information.

PBA – Pennsylvania Builder's Association

The Plumbing & Heating program is a PBA endorsed program, which allows students who complete the program at the advanced level to earn a PBA Certification. Visit www.pabuilders.org for more information.

Industry Certifications:

NCCER Core, OSHA/CareerSafe 10-Hour Certification, Pennsylvania Builders Association Skills Certificate (based on NOCTI)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Engineering & Manufacturing Technology

The Engineering & Manufacturing Technology Cluster offers programs that examine the elements of design, production, and repair. The programs utilize the latest equipment, computers, and technology to teach students the exacting skills to solve problems and transform ideas into products. The equipment and software has been recommended by local business and industry leaders to keep the programs on the leading edge of today's workplace.

**Drafting Design
Technology**

**Precision/Computerized
Machining Technology**

**Mechatronics Engineering
Technology**

Welding Technology

Overview

The Mechatronics Engineering Technology career pathway provides students with a number of career pathways to postsecondary education and industry work. Students who pursue a program in the Mechatronics Engineering Technology field will complete core courses and earn an OSHA certification during their first year.

Level I Core Curriculum

All Level I students will complete the same core content their first year in the program. Students must earn the OSHA 10-Hour Safety Certification. Additionally, students will complete the content required in the core course MET 130 - Industrial Electrical Systems. Students enrolled in the Technical Academy (mechatronics) can earn college credits for their work.

Level II and III Career Pathways Curriculum

The level II students will continue to complete the content required in the core course MET 120 - Industrial Mechanical Systems and MET 140A - Introduction into Programmable Logic Controllers (PLC's). Students will continue work in their individual pathway, including the option to participate in the Technical Academy.

Students will also be expected to earn recognized industry certifications in their chosen program area. These pathways are considered "high priority occupations" by the Pennsylvania Department of Labor for Berks County. Successful students will find excellent job opportunities available in the region.

Students are expected to supplement their technical education program at BCTC with a "college prep" academic program at their participating high school. This is critical to being able to successfully complete the highly technical coursework in Engineering Technology. It will also enable students to pass college academic placement tests and earn advanced credits.

The Engineering Technology curriculum provides a relatively seamless transition to postsecondary education. Through articulation and partnership agreements, successful students may earn advanced credits with Reading Area Community College, Penn State University (Berks), Lehigh Carbon Community College, Pennsylvania College of Technology, and Pittsburgh Technical Institute.

MECHATRONICS ENGINEERING TECHNOLOGY - SECONDARY LEVEL			
Level I			
OSHA/CareerSafe Certification		= 10 hrs	
MET 130 Industrial Electrical Systems - 27 Tasks		= 250 hrs, 4 credits	
Level I - 10 Tasks		= 100 hrs	
	Total Hours	= 360 hrs	
Level II			
MECHATRONICS			
TECHNICAL ACADEMY CREDITS		BCTC	
MET 120 Industrial Mechanics	- 5 credits	Industrial Mechanics - 33 Tasks	= 200 hrs.
MET 140A Intro. to PLC Part I	- 2 credits	Intro. to PLC Part I - 16 Tasks	= 100 hrs.
MET 101 Intro. To Shop Machinery	- 3 credits	Intro. To Shop Machinery - 21 Tasks	= 60 hrs.
Approx. 360 hrs.	Total Credits - 10hrs.	Approx. 360 hrs.	
Level III			
MECHATRONICS			
TECHNICAL ACADEMY CREDITS		BCTC	
Attends RACC and BCTC			
MET 140B Introduction to PLC Part II	- 2 credits		
MET 150 Industrial Mechanics II	- 6 credits		
MET 160 Rotating Electrical Machines	- 3 credits		
Approx. 360 hrs.	Total Credits - 11hrs.	Level III - 29 Tasks	Approx. 360 hrs.



Career Pathways:

Commercial & Industrial Equipment Technician
 Electro Mechanical Technician | Installation, Maintenance &
 Repair Technician

Students will earn an OSHA Safety certification as part of the Level I curriculum. This industry certification is highly recognized in the field and is portable. Some of the topics in the Level I and Level II curricula include: DC and AC circuits, various electrical components including: power supplies, switches, resistors, capacitors, inductors, motors, transformers, solenoids, fuses, circuit breakers and rheostats. Students will combine electric motors, electropneumatic, and electro-hydraulic control components with relays, timers, and counters to create logic and sequential control circuits.

Students will construct and evaluate mechanical systems based on calculated speed, torque, power, pitch, ratios, and mechanical efficiencies. Also, students will install, maintain, and troubleshoot V-belt drive systems, chain drive systems, and hydraulic and pneumatic systems. A variety of control systems are used to integrate the various electromechanical components to create functional operating systems.

The Level III curriculum will provide more in-depth instruction in robotics and automation. Students will complete coursework related to the following

topics: pneumatics, hydraulics, basic mechanical power, electrical motors and controls, digital circuit, semiconductors, programmable logic controls, and robotics.

The Mechatronics Engineering Technologies Program integrates mechatronics, robotics, and electronics content to provide a robust foundation for students who are considering engineering, robotics, mechatronics, or automation as a career. This field continues to evolve creating an increasing demand for engineers, engineering technicians, electronic designers and robotic installation, maintenance and repair. The Mechatronics Engineering Technologies program prepares students for post-secondary education or immediate work in industry, based on the career aspirations of the individual student.

Career Pathways Can Lead To:

- Electrical Engineer
- Mechanical Engineer
- Instrument Technician

Industry Certifications:

OSHA/CareerSafe 10-Hour Certification, Planned – AMIST Certification (Advanced Manufacturing Integrated Systems Technology)

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Qualified students are encouraged to apply as a Technical Academy student for this program. See page 10 for additional information.



Career Pathways: Mechanical Drafter | Architectural Drafter | Civil Drafter Drafter | Electronic Drafter (CAD Technician)

The central activity of drafting and design technicians is to help convert an idea in a designer's mind to precise working specifications from which a product can be made. Drafting design technicians assist engineers and architects in the design and drafting of electrical circuits, machine structures, weldments and architectural plans. Graduates of this program will be well-prepared to enter the workforce as draftspersons in the mechanical, architectural, or civil fields. Students will learn how to prepare engineering plans, layouts, detailed drawings, create mass and volume studies. They will also work on many interesting in-class projects that will challenge their abilities and capture their imagination.

Drafting design technicians are specialists who use many methods of communication. The instruction during this program will focus on developing the following skills: CAD, architectural, mechanical, and civil drafting.

Students learn the basics of CAD while learning the fundamentals of drafting on a computer. The curriculum includes the use of a state-of-the-art 3D printer to print student project models. Each student develops a professional portfolio of work completed during the course. This program provides the skills and foundation for a successful career in the drafting field.

Career Pathways Can Lead To:

Architect | Civil Engineer | Mechanical Engineer
Electrical Engineer | Chief Design Drafter
Aeronautical Engineer | Designer |
Facility Manager | Urban Planner | Surveyor

ADDA – This program is accredited by and conforms to the American Design Drafting Association (ADDA) curriculum. These guidelines were designed in conjunction with the Department of Education and the Department of Labor to assure the level of training and industry requirements are met. Visit www.adda.org for further information.

Industry Certifications:

Apprentice Drafter (ADDA), Autodesk Certified Professional for Design & Drafting, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude
- Artistic ability/creativity



Career Pathways:

Computer-Controlled Machine Tool Operator | Machinist
 Computer Numerically-Controlled Machine Tool Programmer
 Multiple Machine Tool Setter, Operator and Tender | Conventional
 EDM Operator/Programmer | Wire EDM Operator/Programmer
 Milling & Planing Machine Setter/Operator/Tender | Lathe &
 Turning Machine Tool | Setter/Operator/Tender

The machining industry utilizes precision tools and equipment to transform engineers' and designers' visions into finished products. The training in the Precision/Computerized Machining Technology program focuses on in-demand skills for the local and national job market. These are the skills required by the high-tech, modern manufacturing businesses such as aerospace, medical instrumentation, defense, and many more.

Students in the program learn the use of hand tools, conventional machine tools, and Computer Numerical Control (CNC) machine tools to cut metals within 1/10,000th of an inch. Curriculum topics include conventional and CNC milling, conventional and CNC turning, Electrical Discharge Machining (EDM), and precision grinding.

Students also learn interpretation of engineering drawings to gain understanding of machining industry specifications. Training also includes precision inspection using sophisticated measuring

equipment including a coordinate measuring machine, a machinist microscope, and an optical comparator within the metrology lab, where quality assurance is emphasized.

The PMT/CMT program at BCTC has been recognized and awarded the National Institute for Metalworking Skills (NIMS) test site accreditation. This accreditation represents the industry's mark of approval and recognition of the training program. Students will have the opportunity to earn nationally recognized certifications that show their competency in different skill areas.

Career Pathways Can Lead To:

Materials Inspector | Mechanical Engineer
 CNC Programmer/Technician | Metrologist
 Quality Assurance Manager/Technician
 Industrial Designer | Tool & Die Maker
 Machine Shop Supervisor | Moldmaker

NIMS – This program is accredited through the National Institute for Metalworking Skills, Inc. (NIMS) to assure training to industry standards and to meet NIMS quality requirements. Students can earn certifications that give formal recognition of those standards and requirements. Visit www.nims-skills.org for further information.

Industry Certifications:

National Institute for Metalworking Skills (NIMS), OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Completion of Algebra I
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude
- Attention to detail



Career Pathways: Structural Metal Fabricator & Fitter | Welder Cutter & Fitter Production Workers

Welding is a profession that is needed from on top of the world's tallest buildings to the depths of the ocean floor. Welding is used in many industries including construction, manufacturing, aerospace, petroleum, agriculture, and the military. This makes welding an important part of the U.S. economy, and employers have a strong need for skilled welders.

Students in the Welding program learn the welding standards established by the American Welding Society (AWS), using the latest equipment in a state-of-the-art lab. Welding at BCTC is also an AWS SENSE (School Excelling through National skill Standards Education) program.

Students will learn to fabricate or repair metal using electric arc welding. Students also receive training in shielded metal arc welding, gas metal arc welding and gas tungsten arc welding, as well as oxyacetylene cutting/ welding. Students will also have hands-on experience using pulse welding technology and a CNC controlled plasma table to create projects.

Emphasis is placed on the related skills of blueprint and welding symbol reading, as well as fabrication

and layout procedures. Students use AWS blueprints to layout and fabricate modules to achieve an AWS SENSE certification.

Graduates of this program can work in several areas of the welding field. Welding employment opportunities are very diverse and skilled welders may be able to choose from a variety of job prospects both nationally and internationally.

Students may also pursue advanced studies at the post-secondary level in fields such as metallurgy, welding engineering technology, quality control and inspection.

Career Pathways Can Lead To:

- Certified Welding Inspector
- Welding Engineer
- Welding Instructor
- Quality Control/Quality Assurance Technician

Industry Certifications:

Certified Welder (AWS), Level I - Entry Welder (AWS), NCCER Core, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Healthcare

The healthcare industry offers both demanding and very rewarding professions. Advances in medicine and medical technology have aided a growing and aging population, who are living longer and healthier lives. The result is a surge in the demand for skilled professionals in all areas of healthcare.

Dental Occupations

Medical Health Professions

Health Occupations

**Sports Medicine &
Rehabilitative Therapy**



Career Pathways: Dental Assistant | Medical Equipment Preparers

The Dental Occupations program integrates lectures, demonstrations, and hands-on experiences to teach students a variety of dental related subjects. The program provides leading-edge training for a career as a dental assistant and also prepares students interested in attending a post-secondary institution to become a dental hygienist, expanded-function dental assistant or a dentist.

The curriculum covers an introduction to healthcare, infection control, safety and emergency procedures, ethical/legal responsibilities, anatomy and physiology related to dentistry, patient care and procedures, office procedures, dental pain and anxiety control, radiology, operative dentistry, dental materials, dental laboratory procedures, basics of oral surgery, periodontics, and prosthodontics.

By completing this program, students are well-prepared for their chosen careers. As dental assistants, they assist dentists during examination and treatment of patients. Students learn to prepare patients for treatment, sterilize instruments, prepare materials and make study models from impressions, expose and process x-ray film, use digital imaging, and provide chairside assistance for the dentist.

Career Pathways Can Lead To:

- Certified Dental Assistant (CDA)
- Certified Laboratory Technician
- Dental Hygienist
- Dental Assistant Instructor
- Dentist
- Expanded Function Dental Assistant

Industry Certifications:

BLS Healthcare Provider, Radiation Health & Safety (RHS), OSHA/CareerSafe 10-Hour Certification, Anatomy, Morphology and Physiology (AMP), Infection Control Examination (ICE), HIPAA, Bloodborne Pathogens

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Emotionally mature



Career Pathways: Medical Assistant | Home Health Aide | Nursing Assistant Personal Care Aide

The Health Occupations program is a three-year course intended to develop necessary skills knowledge and attitudes for safe, competent performance as an entry-level worker in the healthcare field, such as a nurse's aide or a home health aide. Classroom and laboratory instruction are combined with field trips and clinical experiences to expose students to a variety of health career choices. The core curriculum material is based on the requirements of the Pennsylvania Department of Education and the Pennsylvania Nurse Aide Training and Competency Evaluation Program. Students in this program are prepared to take the test for the Pennsylvania Nurse Aide Registry.

The core curriculum includes an introduction to health care, infection control, safety and emergency procedures, ethical and legal responsibilities, nutrition, normal body functions and common diseases, patient care, human growth and development, rehabilitation and office procedures.

All students are encouraged to maintain eligibility to participate in the Nurse Aide Training Program. Eligibility requirements are based on academic grades, attendance and discipline record while enrolled at BCTC.

Career Pathways Can Lead To:

- Registered Nurse
- Licensed Practical Nurse
- Nurse Aide
- Physician's Assistant

Industry Certifications:

Nurse Aide Registry, BLS Healthcare Provider, Heartsaver First Aid, Personal Care Home Direct Care Staff Certificate, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Read & interpret technical material at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways:

Physician | Nurse | Therapist | Radiologist | Pharmacist
Physician's Assistant | Lab Technician | Nurse Practitioner
Surgeon

BCTC, Penn State Berks, and Tower Health are collaborating to offer an exciting Medical Health Professions Program for high school seniors.

The program combines high level academics with the opportunity to shadow healthcare professionals and earn college credits. The program exposes high school seniors to various healthcare professions so they can make more informed decisions about their future education. Students will be enrolled at both Penn State Berks and BCTC for one year. Students will take dual credit college courses at Penn State Berks two days a week, attend classes on medical-related theory two days a week at the Reading Hospital School of Health Sciences, and shadow healthcare providers at the hospital one day a week. Students will be able to earn up to seven transcriptive college credits through the program. Students will be expected to pay the equivalent to the Reading Area Community College dual enrollment cost per course credit toward the PSU courses, including PSU student fees; however, BCTC may assist the student with the tuition cost as funding is available.

BCTC provides education in the areas of healthcare, trends, professions, anatomy, physiology, and diseases. Tower Health provides job shadowing opportunities in which students will gain an understanding of the healthcare system by observing professionals in a real-world hospital environment. Admission to the program is competitive and students must meet strict admission guidelines.

BCTC, Penn State Berks, and Tower Health have collaborated to offer this exciting program for high school seniors.



Industry Certifications:

BLS Healthcare Provider, Heartsaver First Aid

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- College Prep chemistry and biology, with minimum 3.0 GPA
- College Prep Algebra II, with minimum 3.0 GPA
- Honors or AP Science or Math Courses Preferred
- Advanced or Proficiency in Reading and Math
- PSAT or SAT scores
- Medical History & Physical
- Criminal and child abuse clearances
- TB test/immunizations
- Letters of Recommendation



Career Pathways:

Rehabilitation Aide | Physical Therapy | Occupational Therapy
Athletic Training | Coach | Fitness/Personal Training

Sports Medicine and Rehabilitative Therapy (SMaRT) is designed to prepare students for a number of technical fields in kinesiology.

Instruction will include theory and applications related to: strength training and high intensity training, weight management, nutrition, resistance training, exercise programming, exercise physiology, mental health and wellness, anatomy and physiology, pathophysiology, athletic training, injury recognition and management, rehabilitation and restorative care, and medical terminology.

Students will learn to design safe and effective exercise prescriptions, conduct individual exercise programs, and fitness testing. Students will be prepared to assist in rehabilitative services under the supervision of physical therapists, occupational therapists, speech-language pathologists, athletic trainers and other therapeutic professionals, and to perform routine functions in support of rehabilitation.

Students may seek employment in a wide variety of settings that include fitness clubs, hospitals, corporate wellness programs, strength and

conditioning, and clinical rehabilitation programs. In addition, the program will serve as a strong foundation for students wishing to pursue degrees in the fields of exercise science, athletic training, physical therapy, or occupational therapy.

Graduates of this program are well prepared for entry level employment in rehabilitative services or continued higher education. Students therefore will be required to schedule and maintain strong academic coursework along with the CTE curriculum. Internship opportunities and dual credit college coursework will be developed to support the program.

Career Pathways Can Lead To:

- Athletic Trainer
- Nutritionist
- Occupational Therapist & Assistant
- Personal Trainer
- Physical Education Teacher
- Physical Therapist & Assistant

Industry Certifications:

NASM (National Academy of Sports Medicine) - Certified Personal Trainer, CPR/AED, OSHA CareerSafe 10-Hour Certification, Stop The Bleed, ConcussionWise, First Aid, CardiacWise, HeatWise

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Services

At BCTC, the programs in the Services Cluster focus strongly on customer service and helping individuals in a variety of professions.

The programs are reviewed annually by local business and industry leaders to stay on the leading edge of today's workplace. Students are well prepared for entry level employment or for further education.

Cosmetology
Culinary Arts
Early Childhood Education

Protective Services
- **Homeland Security**
- **Law Enforcement**
Service Occupations



Career Pathways: Cosmetologist | Nail Technician

The Cosmetology program provides students with the knowledge of bacteriology and sterilization. Students will receive hands on training in manicuring, artificial nails, shampoo, scalp treatment, hair-styling, hair-color, permanent wave/chemical relaxers, haircutting, facials/make-up, wigs, receptionist duties, salon management, electricity, anatomy/physiology and ethnic hair care.

The Cosmetology program is regulated and licensed through the Pennsylvania State Board of Cosmetology. To complete the approved curriculum, students must document 1,250 hours of instruction in the program. BCTC offers two instructional sessions each day, with each session scheduled for a maximum of three hours of instruction each day. This provides more than sufficient time to earn the required 1,250 hours. Students who fail to meet the minimum hour requirement prior to graduation may enroll after graduation at BCTC as a tuition paying adult or at a local private school to complete the hour requirement.

Instruction of 1,250 hours qualifies the student for the Pennsylvania State Board of Cosmetology licensing examination. Upon successful completion of the examination, the student then becomes a licensed cosmetologist or nail technician in the Commonwealth of Pennsylvania and is qualified

for employment in a full service salon or advanced licensing in teaching. If students finish the required 1,250 hours of the core program, they may elect to receive training to become a cosmetology instructor and participate in a student teaching program.

BCTC students, under the supervision of licensed instructors, hold cosmetology clinics that are open to the public. The clinics provide students with real world experience by performing salon services for customers such as haircutting, styling, permanent waves, color services, manicuring, and facials. The clinics provide students with invaluable experience that helps further prepare them for the workplace.

Career Pathways Can Lead To:

Cosmetic Company Representative |
Electrologist | Cosmetology Instructor – Post
Secondary | Platform Artist | Artistic Director |
Theatrical Make-up Artist | Esthetician

Industry Certifications:

Cosmetologist, Manicurist, Cosmetology Teacher, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination, depth and color perception
- Artistic ability/creativity
- Communication skills

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.



Career Pathways:

Restaurant Cook/Chef Apprentice | Cook
Cafeteria & Institutional | Food Preparation Worker
Dishwasher/Kitchen Worker | Waiter/Waitress

The Culinary Arts program is accredited by the American Culinary Federation and prepares students for the hospitality industry, one of the largest industries in America today.

Specialized learning units include theory and work experience in the major areas of cooking and baking. Experience is also gained in front-of house skills including waiting on tables and cashiering. Care and use of kitchen equipment, nutrition, food purchasing, and sanitation in food handling in a commercial and institutional setting are emphasized throughout the program. Specific topics covered include performing steward duties; preparing baked goods; preparing breakfast items; preparing stocks, soups and sauces; preparing salads and dressings; preparing hot and cold sandwiches; preparing fruits, vegetables, farinaceous products and tubers; fabricating and cooking poultry, meat and fish; preparing specialty/cold items, and performing supervisory/management skills.

Practical experience is a major part of the program through the operation and management of a complete restaurant and catering service housed within each campus location. The restaurants are open to the public for lunch on select days of the week and provide aspiring young chefs invaluable experience in food preparation, customer service, and restaurant management. Graduates of this program are well prepared for either entry level opportunities in the food industry or for further training and/or education in a university program or at a culinary institute.

Career Pathways Can Lead To:

Caterer | Dietitian | Executive Chef
Cuisine Specialty Chef | Certified Cook
Culinary Arts Instructor
Hotel and Restaurant Manager
Food Service Director/Assistant Director
Food Sales

ACFEF – This program has been accredited by the American Culinary Federation Education Foundation (ACFEF) Secondary Certification Committee. This certification indicates a commitment to excellence by meeting industry established standards, required knowledge and competencies. Visit www.acfchefs.org for further information.

Industry Certifications:

Certified Fundamentals Cook (CFC) (based on NOCTI), Secondary Culinary Graduate (SCG) (based on NOCTI), ServSafe/Manager Food Safety Certification, OSHA/CareerSafe 10-Hour Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Artistic ability/creativity
- Desire to work in the culinary profession
- Ability to accept constructive feedback



Career Pathways:

Preschool Teacher (except Special Education)
Child Care Worker | Elementary Teacher Preparation
Teacher's Assistant | Assistant Group Supervisor
Child, Family, School Social Workers | Nannies

The Early Childhood Education program is designed to train and prepare students for employment in the early learning field and provides the foundation for study in higher education. Students in this program gain daily practical experience in the on-site child care school.

Students study all phases of child development: physical, social, emotional and intellectual. The curriculum focuses on the following topics: establishing and maintaining a safe, healthy learning environment; advancing physical and intellectual competence; supporting social and emotional development and providing positive guidance; establishing positive and productive relationships with families; ensuring a well-run, purposeful program responsive to children's needs; and maintaining professionalism. Each student works independently with a combination of learning strategies used to enhance the student's growth.

Graduates of this program are well prepared for a variety of careers working with children including employment in child care centers, nursery schools, elementary schools, Head Start classes, playgrounds, recreation centers and early childhood education centers. A student graduating from this program can qualify as an assistant group supervisor in child care centers throughout Pennsylvania.

Through agreements with various area colleges and universities, our graduates may qualify for advanced credit in early childhood education programs.

Career Pathways Can Lead To:

Education Administrator – Preschool
& Childcare Center Program
Elementary School Teacher

Industry Certifications:

Child Development Associate (CDA)-Ready Certificate, First Aid, Infant and Child CPR, Mandated Reporting Certification, OSHA/CareerSafe 10-Hour Certification, Fire Safety Training, American Red Cross Babysitting Basics, Health & Safety Basics: Requirements for Certification

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Emotional Maturity - Students will be working directly with preschool age children & must demonstrate respect and self control at all times.
- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Artistic ability/creativity



Qualified students are encouraged to apply as a Technical Academy student for this program. See page 11 for additional information.



Career Pathways:

Emergency Medical Responder | Emergency Medical Technician
Firefighter & Prevention Worker | Police & Sheriff Patrol Officer
Dispatcher: Police, Fire & Ambulance

The Protective Services – Homeland Security program provides students with a comprehensive public safety education. The curriculum is designed to prepare students for careers in firefighting and emergency medical response, fire protection, emergency health services, and emergency management. More specifically, students will study: fire science, including prevention, firefighting, rescue techniques, and hazardous materials; emergency medical services including first responder techniques EMT and dispatch; and emergency management.

Students will apply and refine their communication and computer skills through report writing, research, and information retrieval. The curriculum will include discussions and case studies on professionalism,

ethics, and conflict resolution. The program combines lecture, practical application, and clinical experiences. BCTC will provide EMR or EMT certification coursework. These certification courses will be tuition free. Supervised field trips and clinical experiences will include fire and emergency services departments. This program provides an excellent foundation from which to pursue college and ultimately a career in public safety.

Industry Certifications:

EMR (Emergency Medical Responder) or EMT (Emergency Medical Technician), Hazardous Materials Awareness, Core, PPE, Product Control, NIMS IS 100, 200, 700, 800, CareerSafe – OSHA – Health

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading proficiency is critical
- Algebra I or Geometry
- Must demonstrate high level of emotional maturity
- Disciplinary record must be outstanding
- Must demonstrate a pattern of respect & self control at all times
- Integrity & honesty
- Problem-solving/critical thinking skills
- Ability to work independently & in a team
- Effective written/verbal communication skills
- Physical & mental fitness – self discipline
- Hand-eye coordination



Career Pathways: Safety Inspector / Specialist | Police & Sheriff Patrol Officer Security Officer | Dispatcher: Police, Fire, & Ambulance

The Protective Services – Law Enforcement program provides students with a comprehensive public safety education. The curriculum is designed to prepare students for careers in law enforcement, criminal justice, and emergency management. More specifically, students will study: criminal justice system, including juvenile justice and delinquency, corrections, and judiciary; law enforcement/police science including PA crimes and vehicle codes, criminal behavior, investigations and evidence/forensics, patrol, traffic and crowd control procedures; physical and mental fitness including self-discipline, defensive and arrest techniques and the use of force continuum; and emergency management.

Students will apply and refine their communication and computer skills through report writing, research, and information retrieval. The curriculum will include

discussions and case studies on professionalism, ethics, cultural diversity, and conflict resolution. The program combines lecture, practical application, and clinical experiences. Supervised field trips and clinical experiences will include: municipal police, crime laboratories, county jails, detention and rehabilitation centers, and courthouses. This program provides an excellent foundation from which to pursue college and ultimately a career in public safety.

Career Pathways Can Lead To:

- Bailiffs
- Detectives
- Criminal Investigators
- Intelligence Analysts

Industry Certifications:

EMT (Emergency Medical Technician), Hazardous Materials Awareness, Core, PPE, Product Control, NIMS IS 100, 200, 700, 800, OSHA-CareerSafe (10-Hour) – Health, Monadnock Expandable Baton (MEB), Oleoresin Capsicum Aerosol Training (OCAT), Practical & Tactical Handcuffing (PATH), CPR / AED

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading proficiency is critical
- Algebra I or Geometry
- Must demonstrate high level of emotional maturity
- Disciplinary record must be outstanding
- Must demonstrate a pattern of respect & self control at all times
- Integrity & honesty
- Problem-solving/critical thinking skills
- Ability to work independently & in a team
- Effective written/verbal communication skills
- Physical & mental fitness – self discipline
- Hand-eye coordination



Career Pathways:

Food Preparation Helper | Dishwasher/Kitchen Worker
Laundry & Dry Cleaning Worker | Stock Clerks/Sales Floor
Building Services | Retail Sales

Service Occupations is an innovative program of study focusing on the training of students in a diverse array of skill sets in service related employment areas. Students learn in an environment that fosters a good work ethic, competitive time on task and appropriate work skills for each identified career area. Individual needs and abilities of students are addressed in order to foster personal accountability and pride in a job well done. The Service Occupations facility includes two laboratories where instruction is provided by two instructors and reinforced by instructional assistants. The two instructors each teach defined skills in order for each student to become skilled in a variety of areas. Group instruction is frequently utilized and team building activities are often incorporated.

The Service Occupations curriculum encompasses the areas of work place safety, grounds maintenance, cleaning practices, housekeeping, custodial and retail sales, as well as, kitchen safety, cooking and baking, food preparation, commercial dishwashing, pot washing, and commercial laundry services. All areas are instructed with the intent of achieving a

level of competency commensurate with competitive employment. This is achieved by involving “live work experiences” whenever possible to provide the students with training that approximates what would be found in the work environment. Students are involved in clinical experiences involving janitorial cleaning, maintenance, grounds keeping, laundry and dishwashing around the school. Students take pride in their work, knowing that the school depends on them to do a “professional job” in order to function efficiently. BCTC’s Service Occupations program has the ultimate goal of a seamless transition to gainful employment or further education.

Because of the uniqueness of this program, interested students and their parent/guardian are expected to schedule a visit to the program prior to making application to BCTC by contacting the Student Services Office or by contacting the student’s sending school Special Education representative. This will prevent the processing of the application from being delayed, since there is limited enrollment in this popular program.

Industry Certifications:

AED/Heartsaver First Aid, OSHA/CareerSafe 10-Hour Certification, Ladder Safety

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC’s website.

Program Entrance Recommendations:

- Ability to read and follow directions
- Basic math skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude
- Must be OVR Eligible



Transportation

Motorized vehicles play a vital role in everyday life. The Transportation programs at BCTC train specialists for employment and further education in the transportation field. Students in these programs do “live” work for customers and gain experience in all aspects of their chosen fields.

**Automotive Collision
Repair Technology**

Automotive Technology

Diesel Technology

**Heavy Equipment
Technology**

**Recreational & Power
Equipment Technology**



Career Pathways:

Automotive Body Technician | Transportation Equipment Painter
Insurance Appraiser, Auto Damage | Detailers (Cleaners of vehicles)

This program utilizes the industry standard I-CAR enhanced technical curriculum. Generally, students learn to reconstruct damaged automotive vehicles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace body panels, accessories, grills, trim and automotive glass, and straighten unibody and conventional structures using state-of-the-art equipment and precision measuring systems. Refinishing processes and spray-painting techniques are taught in a controlled atmosphere downdraft spray booth according to industry standards. Students learn the proper use of power and hand tools, welding processes and techniques, and safety.

Students are prepared to enter the auto body and collision industry as entry level technicians. Management, service and business ownership are career paths that many graduates successfully pursue.

The program was awarded a grant from the National Collectors Foundation to introduce students to careers in antique car restoration and customization.

Career Pathways Can Lead To:

- Auto Body Designer
- Auto Body Instructor
- Auto Body Shop Supervisor
- Insurance Adjuster
- Paint Products Representative
- Collision Technician
- Refinisher/Painter
- Frame Straightener
- Windshield/Glass Installer
- Auto Body Shop Proprietor

Industry Certifications:

Certified Emissions Inspector, Certified Safety Inspector – Cat I*, I-CAR Certification(s), OSHA/CareerSafe 10-Hour Certification, Section 609 Certificate for Refrigerant Recycling and Recovery, S/P2

*A student may take the test for Certified Safety Inspector – Cat I test; however, PennDOT holds the certificate until the student is 18 years old.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways:

Automotive Master Mechanic/Technician | Automotive Specialty Technician | Service Technician & Mechanic | Automotive & Watercraft Attendant | Detailer (Cleaner of Vehicles) | Tire Repairer & Changer | Transportation Vehicle, Equipment & System Inspector

The Automotive Technology program is nationally recognized and accredited by the National Automotive Training Education Foundation (NATEF). The program prepares students to engage in diagnosis, servicing, and maintenance of all types of automobiles. Students perform live work and gain invaluable skills in all aspects of automotive technology.

Students begin with the fundamentals and learn to identify and properly use tools and fasteners as well as general auto reconditioning skills. Students learn to inspect, repair and replace components of the suspension/chassis, brake, engine, cooling, fuel, ignition, electrical, exhaust, emissions, air conditioning systems, and drive lines according to the student's chosen career objective. Welding processes and safety techniques are also taught. Students are taught to use technical service information systems and are prepared to obtain the Pennsylvania State Inspection and/or Emission certification.

Graduates are well qualified to enter the automotive field as entry-level service technicians and mechanics. Students who pursue advanced technical training at the post-secondary level will find an array of opportunities in service, management, and entrepreneurship.

Career Pathways Can Lead To:

- Automotive Technology Instructor
- Service Manager
- Parts Manager
- Service Advisor
- After-market Automotive Marketing/Sales
- Equipment Salesperson
- New/Used Car Salesperson
- Racing Crew

* Students are encouraged to obtain a Pennsylvania Drivers License prior to the start of their senior year.

Industry Certifications:

Certified Emissions Inspector, Certified Safety Inspector – Cat I*, OSHA/CareerSafe 10-Hour Certification, Section 609 Certificate for Refrigerant Recycling and Recovery, S/P2

*A student may take the test for certified Safety Inspector – Cat I; however PennDOT holds the certificate until the student is 18 years old. Valid Pennsylvania Drivers License required.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination, depth and color perception
- Mechanical aptitude



Career Pathways:

Bus, Truck Mechanic & Diesel Engine Specialist | Heavy Truck Mechanic/Maintenance Repairer | Maintenance Lubrication Mechanic | Diesel Engine Assembly Specialist

Diesel engines are found in trucks, trains, buses, construction and agricultural equipment and many other types of transportation vehicles. As the diesel equipment industry continues to expand, the demand for mechanics and technicians to repair and maintain diesel equipment grows.

Using state-of-the-art classroom and lab experiences, the program prepares students to engage in diagnosis, servicing, and maintenance of diesel trucks. Students begin with the fundamentals and learn to identify and properly use tools, fasteners, and general reconditioning skills. Students learn to inspect, repair and replace components of the suspension, fifth wheel, steering, brake, engine, cooling, fuel, electrical/electronic, air intake, and exhaust, clutches, transmissions, air conditioning systems, as well as drive lines and rear axles. Welding processes and safety techniques are also taught.

Students are taught to use service and technical information systems and are also prepared to obtain Pennsylvania State Inspection certification.

Graduates of this program are well-prepared to enter the workforce as bus and truck mechanics, diesel engine specialists, and heavy truck mechanics. Additional education after high school can lead to many opportunities in service management, training, and advanced diesel principles.

Career Pathways Can Lead To:

- Service Manager
- Mechanic Apprentice
- Service Technician
- Diesel Mechanic
- Instructor

Industry Certifications:

Certified Safety Inspector – Cat I* & Cat 3, CDL License (at reduced student cost and student must be 18 years old to take the CDL class), Daimler Trucks North America Get Ahead Certification, OSHA/CareerSafe 10-hour Certification, Outdoor Power Equipment Technician Certificate, Section 609 Certificate for Refrigerant Recycling & Recovery, S/P2

*A student may take the test for Certified Safety Inspector – Cat I test; however, PennDOT holds the certificate until the student is 18 years old.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude



Career Pathways:

Diesel Engine Specialist | Field Service/Lube Technician | Mobile Heavy Equipment Mechanic | Heavy Equipment Mechanic – Maintenance Repairer | Industrial Machinery Mechanic | Farm Equipment Mechanic & Service Technician

The Heavy Equipment Technology Program is designed to provide students with the theory and hands-on skills relevant to repair fundamentals and maintenance of various types of heavy equipment found on construction sites. Specialized classroom and lab experiences are designed to provide instruction in systems and components of heavy equipment. This program is recognized by the Association of Equipment Dealers Foundation (AED).

Students begin with safety, tools/fasteners and preventive maintenance basics. Students also learn to inspect, repair and replace components of the suspension, steering, brake, engine, cooling, fuel, electrical/electronic, air intake and exhaust, clutches, transmissions, air conditioning systems, hydraulics/hydrostatics as well as drive lines/rear axles/final drives, and drive motors. Welding processes and safety techniques are also taught. Students will be taught computer diagnostic skills as a tool to troubleshoot electronic problems. Students may achieve certification in air conditioning and/or Pennsylvania Safety Inspection.

In their final year, students also learn the safe basic operation of trucks, tractors, skid steers, backhoes, dozers and excavators.

Graduates of this program are well prepared and find exciting careers as diesel engine specialists, heavy equipment mechanics and apprentice technicians.

Career Pathways Can Lead To:

- Field Service Advisor
- Instructor
- Mechanic Apprentice
- Service Manager
- Service Technician
- Stand-by Power Technician

Industry Certifications:

Certified Safety Inspector – Cat I*, Certified Safety Inspector – Cat III*, CDL License (at reduced student cost and student must be 18 years old to take the CDL class), OSHA/CareerSafe 10-hour certification, Outdoor Power Equipment Technician Certificate, Section 609 Certificate for Refrigerant Recycling & Recovery, S/P2

*A student may take the test for certified Safety Inspector – Cat I test; however PennDOT holds the certificate until the student is 18 years old.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting skills
- Ability to work independently & in a team
- Hand-eye coordination, depth and color perception
- Mechanical aptitude



Career Pathways:

Recreational & Powersports Technician | Motorcycles, ATV's, UTV's & Side by Sides | Outdoor Power Equipment Service & Repair

The Recreational & Power Equipment Technology Program course has earned national technician certification from the Equipment and Engine Training Council (EETC). BCTC is one of only a few technical facilities in Pennsylvania to achieve this standard making it a premier training program for students in Berks County.

By completing the course, students are prepared to obtain EETC certification in 2- and 4-stroke cycle engines. Students will learn basic principles of electronics and hydraulics. They will be qualified to pursue careers in the field of recreation and powersports, outdoor power equipment repair, marine repair and beyond.

The program is designed to teach skills in the service, sales, operation and repair of lawn and garden equipment, chain saws, outboard motors, portable generators, pumps, farm equipment, motorcycles, industrial equipment and snowmobiles. Students perform "live work" for customers, which gives them invaluable experience in estimating, parts ordering, repair, and customer service. Students study measuring tools, ordering and record keeping, small engine design and components, fuel systems, lubrication systems, starting/electrical systems, troubleshooting, overhaul, drivelines, and welding. In addition, repair and service of lawn and garden equipment, chain saws, outboard motors, snowmobiles and motorcycles is taught.

Career Pathways Can Lead To:

- Service Manager
- Parts Sales
- Equipment Technicians
- New Product Assembler
- Dealerships
- Independent Repair Shops
- Fleet Maintenance
- Equipment Rental Facilities

EETC - Equipment & Engine Training Council - This program is accredited through EETC to provide students an opportunity to gain technical proficiency in six areas of outdoor power equipment. Visit www.eetc.org for further information.

Industry Certifications:

Certified Safety Inspector – Cat I*, Outdoor Power Equipment Technician Certificate, OSHA/CareerSafe 10-Hour Certification, S/P2

*A student may take the test for Certified Safety Inspector – Cat I test; however, PennDOT holds the certificate until the student is 18 years old.

Program Requirements/Costs:

There are specific costs for textbooks, tools, supplies, uniforms, certifications; and for some programs, medical and criminal clearances that students are obligated to pay upon acceptance. These costs change annually and are detailed on the individual program pages found on BCTC's website.

Program Entrance Recommendations:

- Reading at grade level
- Algebra I or Geometry
- Problem-solving/troubleshooting
- Ability to work independently & in a team
- Hand-eye coordination
- Mechanical aptitude

PENN COLLEGE DUAL ENROLLMENT

Qualified students are encouraged to apply as a Penn College Dual Enrollment student for this program. See page 11 for additional information.



Continuing Education

Adult Day School

**Apprenticeship
Programs**

Certification Courses

**Commercial Driver's
License Training**

**Customized Training
Programs**

Evening Courses

Online Courses

For more than 40 years BCTC has been providing career training options designed to help adult students meet their career objectives. Whether they are new to the workforce or looking for a career change, with a BCTC certificate of competency adults can go from learning to earning fast. BCTC offers adult students:

- Day, evening, CDL and online programs
- Two convenient locations
- Flexible scheduling
- Competitively priced tuition
- Industry trained and experienced instructors
- State-of-the-art labs and equipment
- Course content that is continuously updated with input from area employers

Careers Start Here.

West Campus: 610-743-7630
East Campus: 610-987-2706

Adult Day School

BCTC offers adult students the same rigorous, competency based curriculum as secondary students in more than 30 programs of study. Adult students receive hands-on career training taught by experienced instructors in exceptionally well equipped labs. In less than two years, adult students can earn nationally recognized industry certifications and a BCTC certificate of competency - credentials needed in today's competitive job market.

Financial Aid is available to qualified students. Complete the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov and enter BCTC School Code – 040413. Refer to the Educational Programs section for a complete description or call (610)-743-7630 for more information or to schedule an appointment to tour a Day School Program.

In addition to Federal Financial Aid, BCTC Scholarships and the Pennsylvania Targeted Industry Program (PA-TIP) Scholarships are available for qualified students in eligible programs of study. Refer to the Program section under the Day School tab on our website at BerksCareer.com/ACE for a complete description.



Certification Courses

BCTC offers courses that prepare adult students for state or federal certification exams in various fields, such as refrigerant recovery (EPA), auto safety inspection and emission:

- PA Safety Emissions Inspector Certification
- PA Safety Inspection Mechanic Certification
- PA Enhanced Safety Inspection Certification
- Refrigerant Transition & Recovery

Customized Training Programs

Customized Training Programs for business and industry can be provided upon request. BCTC staff will work on location at local businesses or in BCTC's state-of-the-art labs. Industry input into the curriculum means that adults who attend BCTC will be prepared to meet current industry demands. A partial list of popular business and industry training topics include:

- Industrial Maintenance & Electromechanical Technologies
- Welding
- Electronics
- Computerized Machining & Precision Machining Technology
- Heating, Ventilation, Air Conditioning/Refrigeration

Please call us to help design a training program that is unique to your business and that will help your employees succeed at their job. We can tailor the curriculum to meet your needs.

Evening Courses

Evening courses provide a cost-effective way to learn new skills on a part-time basis. Classes include theory and hands-on learning opportunities with experienced trainers in a casual atmosphere. Evening courses are generally shorter in length and are offered during the Fall and Spring semesters. In addition, graduates of BCTC earn the opportunity for advanced placement into our apprenticeship programs. A listing of all courses may be found online at www.BerksCareer.com/ACE.



Apprenticeship Programs

BCTC is Berks County's most comprehensive source for related classroom training for apprentices. The curriculum is planned and reviewed annually in cooperation with co-sponsoring trade organizations and the Bureau of Apprenticeship and Training – U.S. Department of Labor.

Apprenticeships offered in:

- Electrical
- Heating, Ventilation & Air Conditioning (HVAC)
- Industrial Maintenance
- Plumbing



Commercial Driver's License Training

Commercial Driver's License Training (CDL) at BCTC offers a professional tractor-trailer driver training program that prepares students seeking careers in the motor carrier field to obtain their Commercial Driver's License. The program is designed to provide professional tractor-trailer driver training to students (who are at least 18 years old) with or without prior truck driving experience.

CDL Training includes:

- Driver skill development
- Applied safety regulations & procedures
- Basic equipment maintenance
- Proper loading techniques
- Intra- & inter-state regulations

The 160-hour course includes 114 hours of theory, 44 hours of one-on-one instruction behind-the-wheel on the range and on the road, and a two-hour final skills exam. Students are prepared to pass the Class A Commercial Driver's License (CDL/A) written and road test required for entry-level tractor-trailer driving positions. Day and evening classes are available.

CDL Class B

This course will prepare the student for the state written and skills test. All driver training is one-on-one. Upon successful completion of the course and exam, students will receive a CDL/B license and a BCTC certificate of completion.

Online Courses

BCTC's Continuing Education Department offers more than 300 course offerings through our partner ed2go.

Visit our website at www.ed2go.com/bctc and take online courses from the comfort of your home or office.

Each ed2go course comes equipped with an instructor, lively discussions with your fellow students, and plenty of practical information that you can put to immediate use. All courses run for six weeks (with a two-week grace period at the end). Courses are project-oriented and include lessons, quizzes, hands-on assignments, discussion areas, supplementary links, and more.

Affordable, convenient, and geared just for you!

Adult Day School students may be eligible for Federal Financial Aid, BCTC Scholarships and the Pennsylvania Targeted Industry Program (PA-TIP) Scholarships. Other sources of tuition assistance for all students, Day, Evening and CDL students include CareerLink, TRA/TAA, the Office of Vocational Rehabilitation, and the Veteran's Administration.

ed2go.com/bctc

How to Get Started:

1. Visit our Online Instruction Center: www.ed2go.com/bctc
2. Click the Courses link, choose the department and course title you are interested in and select the Enroll Now button. Then follow the instructions to enroll and pay for your course, it's fast, secure and convenient to pay online using a major credit card. You will choose a username and password that grants you access to the Classroom.
3. When your course starts, return to our Online Instruction Center and click the Classroom link. To begin your studies, simply log in with the username and password you selected during enrollment.

CLUSTERS, PROGRAMS & LOCATIONS

Business & Information Technology

Business Management & Entrepreneurship (W)
 Computer Systems
 Networking & Security (E)
 IT Programming (W)

Communications

Advertising Art & Design Technology (W)
 Video & Media Content Production (W)

Construction

Building Construction Occupations (E)
 Cabinetry & Wood Technology (E)
 Carpentry (E)
 Electrical Occupations (W)
 Heavy Equipment Operators (E)
 Horticulture (E)
 HVAC / Refrigeration (E)
 Masonry (E)
 Painting & Decorating (E)
 Plumbing & Heating (E)

Diversified Occupations
 (a senior only program)

Engineering & Manufacturing Technology

Drafting Design Technology (W)
 Mechatronics Engineering Technology (W)
 Precision / Computerized Machining Technology (W)
 Welding Technology (W)

Healthcare

Dental Occupations (E)
 Health Occupations (W)
 Medical Health Professions (W)
 (a senior only program)
 Sports Medicine & Rehabilitative Therapy (E)

Services

Cosmetology (B)
 Culinary Arts (B)
 Early Childhood Education (B)
 Protective Services (E)

- Homeland Security
- Law Enforcement

 Service Occupations (E)

Transportation

Automotive Collision Repair Technology (B)
 Automotive Technology (B)
 Diesel Technology (E)
 Heavy Equipment Technology (E)
 Recreational & Power Equipment Technology (W)

Technical Academy Programs

Business Management & Entrepreneurship (W)
 Computer Systems
 Networking & Security (E)
 IT Programming (W)
 Mechatronics Engineering Technology (W)

Teacher Academy Programs

Early Childhood Education (B)

(B) - indicates the program is offered at both campuses.

(E) - indicates the program is offered at the East campus in Oley.

(W) - indicates the program is offered at the West campus in Leesport.



Berks Career & Technology Center consists of TWO campuses:

EAST CAMPUS

3307 Friedensburg Road | Oley, PA 19547
610-374-4073

WEST CAMPUS

1057 County Welfare Road | Leesport, PA 19533
610-374-4073



All programs meet the quality standards aligned with ISO 9001.

Berks Career & Technology Center



Contact Information

Superintendent of Record

Dr. Jill Hackman

Executive Director

Dr. Michael Stauffer

Director of Curriculum, Instruction and Assessment

Mr. Kyle Follweiler

West Campus

Mr. Bradley Entrekin

Campus Principal

Mr. Ray Jenkins

Assistant Principal/Supervisor of CTE

East Campus

Dr. Kristine Rosenberger

Campus Principal

Mr. Craig Soden

Assistant Principal/Supervisor of CTE



BCTC.CE



berkscareerandtech



BerksCareer



Berks Career
& Technology Center

Berks Career and Technology Center will not discriminate in its employment practices or its educational programs and activities on the basis of race, color, age, creed, religion, gender, sex, sexual orientation, ancestry, domicile, veterans status, national origin, marital status, pregnancy, handicap/disability or genetic information or any other legally protected characteristics in its admission procedures, educational programs and activities or employment practices, as required by the Pennsylvania School Code and related regulations, ADA, Title VI, Title IX, and Section 504 and will provide equal access to the Scouts of America and other designated youth groups. Students are encouraged to consider enrolling in career programs non-traditional to their gender. Berks Career and Technology Center will take steps to assure that the lack of English language skills will not be a barrier to admission and participation in career and technical education programs and will make reasonable accommodations for those with disabilities. Furthermore, harassment in any form, including bullying, by any individual will not be tolerated. All policies, regulations and practices of BCTC shall be guided by this statement. Inquiries regarding compliance with Title IX, Section 504 or Title VI should be directed to Dr. Michael Stauffer at the Office of the Executive Director at 1057 County Welfare Road, Leesport, PA 19533, 610-374-4073. To review BCTC's complete non-discrimination notice, please visit: BerksCareer.com/non-discrimination-notice.

Berks Career and Technology Center no discriminará por razones de raza, color, edad, religión, sexo, orientación sexual, origen, domicilio, si es veterano, nacionalidad, estado civil, embarazo, incapacidad o cualquier otra característica protegida legalmente en su proceso de empleo, programas educativos ni actividades o proceso de admisiones como es requerido por el Código Escolar del Estado de Pennsylvania y las regulaciones ADA, Título VI, Título IX y Sección 504 y proporcionará un acceso igualitario a los Exploradores de America y otros grupos de jóvenes designados. Fomentamos que todo estudiante considere registrarse en programas educativos no tradicionales a su sexo. Berks Career and Technology Center tomara pasos para asegurar que la falta de conocimiento de Ingles no sea una barrera para su admisión y participación en los programas educativos y técnicos. También se harán acomodaciones razonables para personas con impedimentos físicos. Cualquier forma de acoso, incluyendo intimidación por parte de cualquier individuo no será permitida. La política, regulaciones y prácticas de BCTC serán guiadas por esta declaración. Dudas o preguntas acerca del cumplimiento del Título IX, Sección 504 o Título VI deberán dirigirse a la oficina del Director Ejecutivo, Dr. Michael Stauffer, en 1057 County Rd, Leesport PA 19533, 610-374-4073. Para revisar el aviso completo de no discriminación de BCTC, visite: BerksCareer.com/non-discrimination-notice.