SKILLED TRADES

JENNIFER LAUFF
Certificate in Welding Technology
CCAC Class of 2018
Ironworker
Iron Workers Local 3

COMMUNITY COLLEGE OF ALLEGHENY COUNTY

OUR GOAL IS YOUR SUCCESS.
AUTOMOTIVE TECHNOLOGY
Associate of Science Degree & Certificate Programs
These programs prepare students for accelerated careers servicing and repairing today’s high-tech automobiles. Students become trained in the latest automotive service technologies and methods—including emerging green technologies, such as hybrids, plug-in electrics and natural gas-powered vehicles. Academic courses included in the associate degree program provide students with the necessary background for effective communication and increased opportunities for career advancement.

CCAC’s automotive curriculum prepares students to take the tests necessary to earn Pennsylvania Safety and Emission Inspection Licensing and Automotive Service Excellence (ASE) certification. All CCAC instructors are ASE Certified Master Technicians with years of industry experience.

For further information or to take a tour of CCAC West Hills Center or a campus near you, call 412.788.7500 or email admissions@ccac.edu.

For a complete list of all programs and courses, visit ccac.edu/Programs_and_Disciplines.

SKILLED TRADES PROGRAMS
Demand and wages are skyrocketing for skilled professionals who can run and maintain complex machines, robots and computer systems. CCAC’s Skilled Trades programs encompass a wide range of these strong wage-earning professions. The nearly 30 certificate and degree offerings in the skilled trades and energy technologies—which include several apprenticeship programs—prepare college students for rewarding careers in these highly-skilled sectors.

Certificate programs help students develop the skills and knowledge needed for entry-level positions. Graduates who wish to continue their studies at CCAC have the opportunity to complete the additional courses required for an associate degree in many programs. Associate degree programs prepare graduates for advancement to management positions within skilled trades careers. Core courses that are required for an associate degree can be taken at most CCAC locations. Program courses that teach the skills specific to the Skilled Trades programs are offered at CCAC’s West Hills Center.
ASEP/ASSET/MCAP MANUFACTURER AUTOMOTIVE TECHNOLOGY
Associate of Science Degree Program
For individuals who wish to specialize and get on-the-job training, CCAC offers two-year apprenticeship and degree programs in conjunction with area dealerships. These manufacturer-certified programs, identified as GM ASEP, Ford ASSET and FCA (Fiat Chrysler Automobiles) MOPAR CAP, combine classroom and lab work with a paid on-the-job training program at a participating dealer or repair shop, preparing students for careers as automotive service technicians in General Motors, Ford or Fiat Chrysler dealerships. As apprentice technicians, students gain the technical competency and skills to diagnose, service and maintain vehicles using recommended procedures, special tools and service information.

BUILDING CONSTRUCTION
Choice of one of these Associate of Science Degree Program tracks:
- ESTIMATING
- SUPERVISION
- TECHNOLOGY
The Building Construction Estimating, Supervision and Technology programs prepare students for a variety of interesting careers in the construction industry. Coursework in all programs focuses on commercial construction applications and evolving green technology.

The Building Construction Estimating and Supervision programs are offered in conjunction with the Joint Apprenticeship Committees of the Building Trades and the Pennsylvania Department of Labor; applicants must have earned a journeyman certificate in one of the trade technologies. Students enrolled in these associate degree programs are prepared for advancement in the building construction industry.

The Building Construction Technology associate degree program is designed to prepare students who have work experience in building construction for advancement to positions of management.

ELECTRICAL DISTRIBUTION TECHNOLOGY
Associate of Science Degree & Certificate Programs
These Electrical Distribution Technology programs prepare students for entry-level positions in the electrical utility industry as maintenance/installation technicians on electrical distribution systems and electrical substations. Students are equipped with classroom, hands-on and on-the-job training in the electric utility industry that meets the requirements for an entry-level position. Students who pursue an associate degree receive a balance of academic and technical education intended to support career advancement. Graduates have the opportunity to enter careers with strong earning potential.

FACILITIES MAINTENANCE TECHNOLOGY
Associate of Science Degree & Certificate Programs
These versatile programs offer students an opportunity to learn and develop skills in facility maintenance. Students in the certificate program are well prepared for entry-level positions. Students enrolled in the associate degree program receive a balance of academic and technical education intended to support career advancement. Students may customize their facility maintenance education through their choice of elective course offerings.
HEATING & AIR CONDITIONING
Associate of Science Degree & Certificate Programs
HVAC technicians have great job security as HVAC services will always be needed and, with many consumers making the change to more efficient systems, HVAC companies nationwide are looking for qualified technicians.

These programs equip students with all the necessary skills and knowledge to install, repair and maintain refrigeration, heating and air conditioning equipment. Students learn the fundamental concepts of electricity, refrigeration, heating and air conditioning, plus installation and preventive maintenance and EPA certification preparation, with special attention given to the integration of green technologies. Advanced courses in the associate degree program develop more sophisticated design and application skills. The degree program also prepares graduates for advancement to management positions.

MECHATRONICS TECHNOLOGY
Associate of Science Degree & Certificate Programs
Students in these programs, which integrate automated systems, electronics and control systems used in industry, receive a comprehensive education in electrical and mechanical processes and computer controls. Workers with these skills are in high demand in several industries, including the petrochemical, process technology, energy, manufacturing, and supply chain and logistics sectors. Students will benefit from a technical core set of courses that combine industry-recognized certification and quality college education. Students in the degree program may specialize in robotics and automation, instrumentation and process control or supply chain technology.

Graduates of the certificate program may find employment as production workers, maintenance and repair workers, inspectors, testers, sorters, electro-mechanical technicians, industrial maintenance technicians or entry-level supply chain technicians. Graduates of the degree program may additionally find employment as instrumentation technicians, robotics technicians, automation engineer technicians, electro-mechanical technicians, process technicians or field automation technicians.

Degreed graduates also have the credentials to pursue supervisory positions. Graduates have the opportunity to enter careers with strong earning potential.

PLUMBING
Certificate Program (Nonunion)
This short-term training program is designed to offer students an opportunity to acquire the basic skills required to assist with the installation and repair of plumbing systems in residences and small buildings. Many plumbers are self-employed; however, this profession typically requires a long period of on-the-job experience for plumbers to be fully qualified and licensed. Students who complete the certificate program have the option of applying their credits toward an associate degree in General Studies at CCAC.
WELDING, GAS & OIL
Certificate Program
This program provides students with the skills and knowledge required for employment as pipe welders in industries such as cross-country natural gas transmission and natural gas retailers.

Upon successful completion of the program, graduates will be prepared to take American Welding Society (AWS), American Society of Mechanical Engineers (ASME) and American Petroleum Institute (API) certification exams and to demonstrate the technical skills for employment as a welder in the Marcellus Shale and other industries.

WELDING TECHNOLOGY
Associate of Science Degree & Certificate Programs
The certificate program equips students with the essential entry-level skills required to work as a welder. Students are eligible to take American Welding Society (AWS) certification exams. This program also offers students the necessary skills to read blueprints. Full-time students are prepared to sit for AWS certification in four months. Students may find employment as welders, fabricators or grinders. The associate degree program, which includes courses in mathematics, science and blueprint reading, provides students with the skills and knowledge to work as welding specialists. Successful completion prepares graduates for several industry certifying examinations. Additionally, advanced certifications are available through CCAC’s elective course offerings. Graduates may seek employment as welders, welding shop supervisors or as advanced certified welders.
CCAC’S APPRENTICESHIP PROGRAMS enable students to earn while they learn, so they don’t incur burdensome debt while in college. Rather, students in these programs earn a wage and gain valuable work experience while they attend school.

CARPENTRY APPRENTICESHIP Certificate Program
The Carpentry Apprenticeship, a four-year certificate program, offers occupational training under the sponsorship of the local Joint Apprenticeship Committee of the Building Trades and the Pennsylvania Department of Labor. Through training and on-the-job experience, students are equipped to work in commercial building construction as skilled carpenters. Upon successful completion of the apprenticeship program, the state awards journeyman working papers. Students may apply the 28 academic credits of the program toward an associate degree in Building Construction Estimating or Building Construction Supervision.

ELECTRICAL CONSTRUCTION (JATC/IBEW) TECHNOLOGY APPRENTICESHIP Associate of Science Degree Program
Students in this five-year program receive occupational education under the sponsorship of the Joint Apprenticeship and Training Committee (JATC) of the International Brotherhood of Electrical Workers (IBEW) Local 5.

Training includes classroom, hands-on and on-the-job experience in journeyman wireman electrical work. Upon completion of the curriculum and the required job experience training, students are eligible to take the IBEW Journeyman Wireman examination. The National JATC, IBEW, National Electrical Contractors Association and the Pennsylvania Department of Labor issue certificates of completion to those who successfully complete this apprenticeship program and pass the examination. This certificate allows the graduate to work in residential, commercial and industrial construction as a skilled journeyman wireman and in all aspects of the electrical and teledata industry. Students must submit an application through the JATC by calling 412.432.1145.

HEAVY EQUIPMENT OPERATING ENGINEERS APPRENTICESHIP Certificate Program
In this four-year program, students receive occupational training under the sponsorship of the local Joint Apprenticeship and Training Committee of the Western Pennsylvania Operating Engineers. The CCAC component of this program comprises lecture and laboratory classes for 45 credits, which may be applied toward an associate degree in Building Construction Estimating or Building Construction Supervision. Instruction encompasses a range of skills, including safety, plans and specifications, soil inspection and welding. The main focus is the operation of a wide variety of heavy equipment used in the construction industry.

IRONWORKER APPRENTICESHIP Certificate Program
In this three-year program, students receive occupational training under the sponsorship of the local Joint Apprenticeship Committee.
The CCAC component of this program comprises lecture and laboratory classes for 45 credits, which may be applied toward an associate degree in Building Construction Estimating or Building Construction Supervision. Upon completion of the certificate and the required job experience hours, graduates may work in commercial building construction as skilled ironworkers.

**PLUMBER APPRENTICESHIP Certificate Program**

This five-year certificate program offers students occupational training under the sponsorship of the local Joint Apprenticeship Committee. The CCAC component of this program comprises lecture and laboratory classes for 28 credits, which may be applied toward an associate degree in Building Construction Estimating or Building Construction Supervision. The associate degree program is designed for students seeking advancement to management positions.

Upon completion of the certificate and required job training, students are prepared to work in the commercial building construction industry as skilled plumbers. Graduates have the opportunity to enter careers with strong earning potential.

**SHEET METAL WORKER APPRENTICESHIP**

**Associate of Science Degree & Certificate Programs**

The four-year certificate program offers students occupational training under the sponsorship of the local Joint Apprenticeship Committee. Students receive classroom instruction, shop training and job experience in sheet metal work. Upon completion of the certificate and required job training, graduates may find employment working as skilled sheet metal workers in areas such as commercial building construction, industrial duct fabrication and installation, and kitchen equipment fabrication and installation.

The associate degree program offers student apprentices the opportunity to continue their education and complete the coursework needed for an associate degree, which will prepare graduates for career advancement.

**STATIONARY OPERATING ENGINEER**

**Associate of Science Degree & Certificate Programs**

These programs are International Union of Operating Engineers Local 95—supported and are designed to equip students with the training needed for employment as stationary operating engineers for both union and nonunion positions.

Students in the certificate and associate degree programs acquire the skills needed for employment in jobs requiring multiple maintenance competencies, including electricity, plumbing and boilers. These competencies will enable students to obtain highly skilled maintenance positions in a variety of industries as well as office buildings, universities, hospitals, school districts, municipalities, stadiums and commercial/industrial facilities. Students who pursue an associate degree are prepared for advancement to management positions.

Graduates may seek employment as stationary operating engineers, chief engineers, facilities managers, maintenance foremen or building engineers.

ABOUT THE COMMUNITY COLLEGE OF ALLEGHENY COUNTY (CCAC)

Since its founding in 1966, CCAC has flourished, becoming the educational powerhouse it is today—a nationally renowned two-year college dedicated to serving all members of the community. From groundbreaking student success initiatives to top-ranked academic and career-based programs, CCAC continues to be the college of choice for nearly one out of three adults in the Greater Pittsburgh metropolitan region.

Every year, more than 25,000 students enroll at CCAC, taking advantage of nearly 160 degree, certificate, diploma and transfer programs while thousands more access noncredit and workforce development courses. Comprising four campuses and four neighborhood centers, as well as other off-site locations, CCAC is honored to have one of the largest veteran student populations in the state and takes pride in ranking among the nation’s top community colleges for the number of individuals graduating in nursing and other health-related professions.

CCAC graduates have transferred to the nation’s most prestigious colleges and universities, have obtained the most academically challenging and competitive degrees and can be found at leading companies, organizations and institutions throughout the country. CCAC alumni are actively engaged in every sector of society, providing leadership to scores of economic, scientific, civic and philanthropic entities both in the Pittsburgh region and around the world. Visit ccac.edu to learn more.
HENRI SIYAPDJE emigrated to the U.S. from Cameroon in 2012 and was living in New York City, where he worked as an airport security guard. He had taught himself English, but was struggling to find work that would provide a good life for himself and his family—so he decided to go back to school.

Siyapdje began searching online for an affordable college where he could train to become a nurse, and he discovered the Community College of Allegheny County. Although he didn’t know anyone in the area, Siyapdje was so impressed with CCAC and all that the college had to offer that he moved his family to Pittsburgh.

But prior to enrolling in the Nursing program, as he was perusing CCAC’s website, Siyapdje saw the Mechatronics Technology program and wanted to know more. He arranged a visit to CCAC West Hills Center, where he was given a tour of the program’s labs. Everything that he saw appealed to him.

Siyapdje began the Mechatronics Technology program in September 2017 and is on track to graduate with an associate degree. “I’m learning a lot, and I want to know more about PLCs (programmable logic controllers) and robotics.”

In the spring of 2018, he received a $4,000 scholarship from the Association for Packaging and Processing Technologies. For Siyapdje, who works the night shift in garage maintenance to support his family while going to school, the scholarship is a significant boost to the family’s finances and, he says, “It shows I made the right decision.”

What he likes most about CCAC is the fact that the instructors are very engaged with their students. Siyapdje wants to find a job where he can use his mechatronics skills while he continues to learn. He plans to return to CCAC to pursue an additional degree in Engineering Technology.

MECHATRONICS TECHNOLOGY is CCAC’s signature automation systems program where students learn the integrated skills associated with supply chain, process technology, robotics/AI and electrical systems in as little as two years.