



WELL ROUNDED

Extensive educational options ensure students are ready for real-world jobs

Welding degrees combined with education in robotics, nondestructive testing (NDT), CNC plasma and oxyfuel cutting, and machining? Pennsylvania College of Technology, Williamsport, Pennsylvania, has all of the above. Penn College, as it's known, continuously improves its curriculum and the technology it teaches. The school has more than 100 majors and a total enrollment north of 4,000.

The welding program is the college's second largest program. Boasting a 55,000-sq.-ft. facility and a current enrollment of more than 300 students from across the country, Penn College offers a broad array of degrees, certifications and options for welding education. It has 124 welding booths, seven labs with 18 welding units each, 12 robots, two CNC cutting tables, pipe benders, press brake, plate and angle rollers, a purge chamber for all its titanium and stainless steel training, and much more. All of these real-world machines and systems ensure the students are ready for more than welding when they graduate.

"We ensure they have learned all procedures and techniques accurately according to American Welding Society standards," says Jim Colton II, CWI, co-department head and one of 17 welding instructors. "All our welding courses use all five volumes of the AWS Welding Handbook, and we have an AWS Sustaining Membership, the highest level," which gives the school both hard copies and e-learning access to AWS materials.

"Penn College uses AWS codes to teach our codes and procedures classes. Our goal is to make our students well-rounded in the industry so they are a real asset to their employers," says Michael Allen, co-department head and instructor.

In addition, all 17 welding faculty are AWS members, six are certified welding inspectors, and several hold positions on the AWS National Education Committee and National Scholarship Committee. This

fall, Penn College will have Pennsylvania's only Accreditation Board for Engineering and Technology accredited welding associates programs and the state's only ABET-accredited welding bachelor program.

WALK-ON KNOWLEDGE

Penn College believes the role of a tradesperson in the future is to be multi-skilled. "It's important that students learn the technology on the current equipment used in the field," emphasizes Allen. "We want our students to walk into any manufacturing plant or onto any construction site and be knowledgeable on the equipment being used. They will know how to program inverters and robots and understand the code for specific welding jobs."

"We teach blueprint reading and help students learn the importance of qualifying procedures and following specifications so they are more marketable to employers and capable of stepping into multiple roles at a company," adds Colton. "For example, as part of a student's coursework, they need to specify welding codes related to an electrode used in a procedure that they are studying."

Students in the metal fabrication program spend half their time in the welding building and the other half with machinists. They can also pursue courses in robotics, mechatronic and automated manufacturing technology.

"We are especially proud of the robotics department within our welding program. We have a variety of brands like ABB, Panasonic, KUKA and Cloos," continues Colton. "It's important that students are familiar with these major brands and how each of their technologies work."

NURTURING PARTNERSHIPS

Colton says welding manufacturers, including Lincoln, Miller, Fronius and ESAB, have been generous with educational discounts and consumables for the college, and "the local companies in the area provide us with supplies, as well. We are fortunate to be located

SKILLS

PENN COLLEGE PROGRAMS

- Associate degrees in metal fabrication technology, which provides training in welding, machining and sheet metal fabrication.
- Associate degrees in nondestructive testing (NDT) where the student masters NDT methods and gains essential hours toward an American Society of Non-Destructive Testing (ASNT) certification
- Bachelor's degrees in welding and fabrication engineering technology
- Associate degrees in welding technology
- Welding certificate

in such a large industrial geography. We have great relationships, and that's important for employment placement of our graduates."

Last year, 29 Penn College students received scholarships valued at more than \$58,000 through the AWS Foundation. Over the last five years, 143 scholarships totaling more than \$300,000 were awarded to Penn College enrollees.

As a three-time graduate of Penn College—first a welding certification early in life, then an associate degree and finally a bachelor's degree in welding engineering technology in 2010—Allen is committed to Penn College's welding program.

"Our approach is rooted in real-world experience, and we develop our curriculum around that, he says, adding that Penn will continue to upgrade its equipment, technologies and curriculum "to stay ahead of industry needs." **FFJ**

American Welding Society, Miami, 800/443-9353, aws.org.

Pennsylvania College of Technology, Williamsport, Pennsylvania, 800/367-9222, pct.edu.