

Cuyahoga Community College (Tri-C®)

Success Story

Top-Notch Education in the Ways of Welding



Backed by state-of-the-art equipment, a new training laboratory at Cuyahoga Community College addresses the welding-workforce challenge in Northeast Ohio.

As community colleges increase their role in educating the skilled workforce of tomorrow, as well as those already on the production line, the timing couldn't be better for Northeast Ohio's Cuyahoga Community College (Tri-C®) to launch its new Advanced Technology Training Center (ATTC).

"The center exists to find, train, and place the right people in the right jobs – it is always all about jobs," says Susan Muha, executive vice president of workforce and economic development at the college.

Muha and the rest of Tri-C's administration are rightly proud of this pioneering community college's latest addition at its Metropolitan Campus in downtown Cleveland. The 50,000-square-foot ATTC opened its doors in October 2012 with the goal to link workforce education to the latest technology. Combined with the college's Unified Technology Center, the two form the largest technology training complex in Ohio.

Equipped to Meet High Demand for Welding Instruction

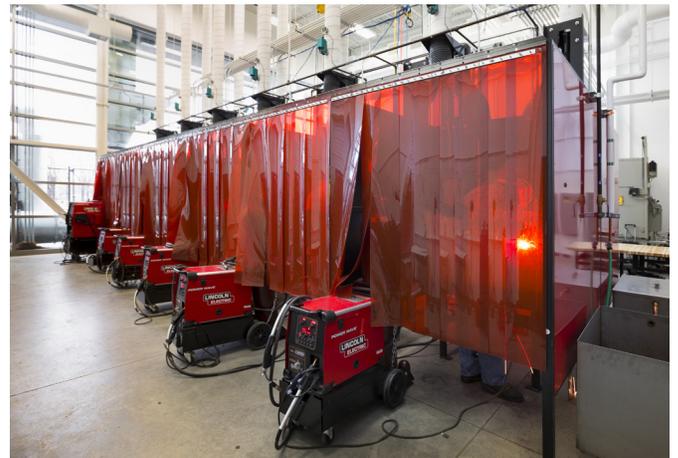
One major ATTC component is the state-of-the-art welding lab, residing in one of four high-bay spaces designed to allow quick changeout of equipment and technologies. The lab, stocked with equipment from Cleveland's own Lincoln Electric, operates every weekday from 6:30 a.m. to 10 p.m., training students working toward associate degrees, helping members of the community acquire new skills and providing specific training for employees of various manufacturing companies. The lab meets a core ATTC goal to develop a strong technology-savvy workforce.

"There are many manufacturing-technology jobs available, and those jobs continue to grow," Muha explains. "The reality is that everyone will have, at some point, a certain amount of advanced technical skills. Yesterday we did things by hand, and we did things in agrarian societies that we don't do now.

Technology is changing so quickly, and with these changes, it is our job to prepare people to work in such an environment."

Virgil Chichernea, program manager for industrial automation and maintenance at Tri-C, agrees, and also sees the need for welding training in Northeast Ohio.

"We have a high demand for welders in this region," he says, noting that need as a major reason for opening the new ATTC welding lab. "We have a long waiting list for the classes for this building. We've noticed that about half the people that enroll in classes just want the welding skill, and after a semester of training, they easily can land a welding job. Others pursue associates degrees, looking for management or other skilled jobs in a manufacturing environment."



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Hands-On Training with Production Welding Tools and Simulation, Too

The ATTC welding lab features welding equipment from Lincoln Electric, the same production welding equipment used



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troubleshooting of robotic welding and programming. The unit is so compact, it can be wheeled through a standard doorway to a classroom for personal or small group programming training or to the lab for hands-on welding training.

Lincoln Electric’s innovative VRTEX® 360 Virtual Reality Arc Welding Trainer is a computer-based welding training simulator that completes the welding equipment offerings. The VRTEX welding simulator allows students to learn basic



The VRTEX® 360 virtual reality arc welding system allows students to try different welding processes in a variety of simulated welding environments.

throughout industry. Included are 12 fully operational weld booths for gas-metal-arc, gas-tungsten-arc and stick welding. The booths feature Lincoln Electric fume-extraction equipment, as well as 10 Lincoln Electric Power Wave® C300 power sources and four Precision TIG® 275 welders.

In addition, the program uses a Lincoln Electric Robotic Welding Education Cell. This compact and fully functional welding robot can be used to train students on the set up, operation and

welding processes, procedures, positions and techniques using virtual reality at a comfortable pace without incurring the cost of using gas or materials. The training system, which features a real welding helmet equipped with virtual reality technology as well as VR

welding gun and VR stick electrode device, allows students to try different welding processes in a variety of simulated welding environments. Research shows that students who have learned in a blended welding training program using the welding simulator improve technique, learn faster and certify at a higher rate than those without it, according to Tri-C officials.

“The feedback from the VRTEX welding simulator is instantaneous,” says Muha. “It is not listening to a lecture, it is actually doing it. Welding simulation saves the cost of materials so there is not as much waste. Simulation allows students to learn to be comfortable with the equipment they have in front of them, be comfortable with putting on the helmet, and learn how to hold any of the devices. It has been a great aid to us and we will be using more simulations in all of our classes.”

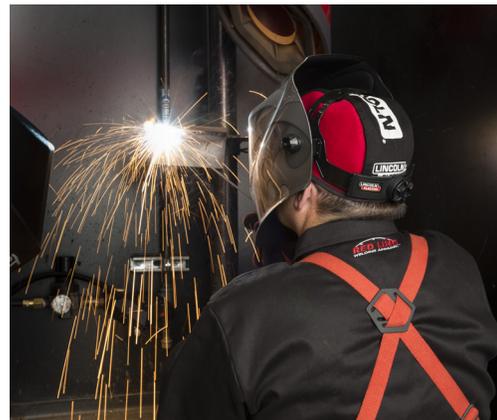
In fact, for those reasons and also to meet demand from an increase in welding students, Tri-C plans to purchase another VRTEX welding simulator, report Muha and Chichernea.

Training is Key to Job Security and Growth

Benefitting from the impressive array of equipment and the expert instruction is Barry Kostura. He is taking ATTC classes specially designed for General Motors. The GM employee sees welding education as the key to job security and growth.

“I am lucky enough to work for GM, which believes in a skilled workforce and is sending us here to improve our skills,” Kostura says, noting that the classes are fast-paced and focused on technique.

“Skilled trades are the basis of a good economy,” he reasons. “Without manufacturing and the ability to repair things, the economy is not good. This is a good career choice.” ■



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