Lakeland
COMMUNITY COLLEGE
INDUSTRIAL WELDING

WELDING N.O.W.

Lakeland Community College Leverages Advisory Committee to Grow Industrial Welding Program

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Ryan Eubank acknowledges his students with a friendly greeting and a firm handshake. As the program coordinator and adjunct faculty for Lakeland Community College's industrial welding program, he understands the importance of role modeling the soft skills that will give his students a competitive advantage as they begin their welding careers.

Over the last four years, Eubank and Linn Gahr, who serves as the Welding N.O.W. project manager at Lakeland, have enhanced and expanded their school's welding program to better meet the needs of students and employers in the region.

As part of the Ohio Technical Skills Innovation Network (TechNet), a consortium of 11 community colleges in Ohio, Lakeland received $1 million from a Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant focused on advanced manufacturing.

"The primary goal of the grant is to strengthen job training opportunities for trade adjustment-impacted workers who lost their jobs overseas, as well as job training for veterans, with a focus on expanding capacity both in enrollment and curriculum," said Gahr.

The four-year grant, which was awarded in October 2014, has been used to expand Lakeland's Welding N.O.W program. This includes adding new equipment, hiring a specialized recruiter, program developer and faculty, enhancing the curriculum, and offering more opportunities for classes to increase student capacity.

In Northeast Ohio, the need for skilled welders is great, with construction opportunities currently outpacing welding jobs in manufacturing. The high demand for welders is also due to an aging workforce that is reaching retirement.

Creation of an Industrial Welding Advisory Committee

To help meet the demand for skilled welders, Gahr and Eubank explored how to enhance the Welding N.O.W. program to attract more students. One of the key strategies they implemented was the formation of an Industrial Welding Advisory Committee comprised of experienced welding professionals from diverse industries.

The current committee includes 27 members representing 22 businesses, industry, labor, secondary education and the public workforce. Members have a wide range of welding expertise in various materials and processes, and represent large and small organizations from throughout Northeast Ohio.

The primary role of the advisory committee has been to offer input on the welding program's curriculum to ensure it aligns with current and future workforce needs. They've also participated in employer panels where they talk to students about the qualities they seek in job candidates and the realities of a welding career, from on-boarding and the work environment to specific tasks and responsibilities. Further, they've played an

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instrumental role in securing donations for materials, equipment and scholarships.

Eubank, who has been a welder for 22 years, is well known within the local welding community, which helped to build credibility and recruit members for the advisory committee. Committee members also share his passion and vision.

"Our advisory committee members have a strong belief in success," said Eubank. "They are on the front-lines, so they know what needs to be done and what's been missing in job candidates. As decision-makers within their organizations, they have good insight regarding the pool of available candidates and know how hard it is to find good people."

Consequently, advisory committee members are highly engaged and take their role seriously, meeting twice per year – but frequently requesting additional meetings to critically review and vet proposed changes to the program. Between meetings, they are in regular communication with program staff, sharing their expertise, making recommendations or teaching students.

> **"It's been important for our advisory committee to play a meaningful role in maintaining welding standards, growing programs and raising the bar for their profession," said Gahr. "Advisory committee members also represent a pipeline to employment for our students."**

In turn, Lakeland has maximized the input from the advisory committee by listening to their recommendations and being receptive to making changes.

"At our meetings, we identify the challenges, then discuss their ideas to find the best solutions," said Eubank. "This is crucial to keeping a pulse on the needs of the business community."

Once solutions are identified, the team at Lakeland works to implement them quickly, which enables the advisory committee to see progress, often by the next meeting.

"They thanked us for listening and revising the curriculum," said Eubank. "Having a receptive administration has also been important to our success."

Advisory committee members, George Hlifka and Peter Szlamas, alumni of Lakeland's welding program, have been part of the advisory committee from the beginning. Along with being a welder for many years, Hlifka has a unique perspective as chair of the Qualification and Certification Committee of the American Welding Society.

"At Lakeland, they've done a good job of looking ahead and identifying what equipment and processes will be necessary five years from now," Hlifka said. "From the administration to the faculty, there's a passion for welding and supporting the students. It's especially rewarding to hear about all the successes at Lakeland."

When he first joined the advisory committee, Szlamas was unsure of what to expect, but knew he wanted to be involved. A supervisor at Babcock and Wilcox in Barberton, Ohio, he finds it gratifying to see how his alma mater's curriculum is preparing the next generation of welders.

"Our students are getting a great skill set. They're winning national competitions, getting good jobs and taking leadership roles," Szlamas said. "A lot of other schools are now looking at what we do."

Advisory committee member, Christopher Gandee, is passionate about education, so it was important for him to get involved. Trained as a welder in the U.S. Army, he's now a hiring manager for STERIS Corporation in Mentor, Ohio, and actively involved with recruiting qualified welders.

"I see a big difference in graduates from Lakeland versus other programs," Gandee said. "Ryan instills the soft skills that are important and his students are ready for the real world."

Gandee has also been instrumental in obtaining stainless steel from STERIS Corporation to be used in welding projects.

Welding N.O.W. Program Growth and Success

Based on feedback from the advisory committee, as well as students and instructors, the Welding N.O.W. program staff incorporated many changes including:

- Offering basic and advanced welding courses, which allow students more time in the welding booth to grow skills
- Offering new courses in robotic welding, inspection and welding economics
- Embedding project-based learning in advanced welding courses
- Incorporating industry-recognized American Welding Society (AWS) Certification of Qualification testing into advanced welding courses
- Offering all courses in an accelerated 8-week format

"AWS Certification of Qualification testing in industrial welding is available for advanced welding courses, which tells employers about our students' competency and represents an industry-recognized credential that is portable," said Gahr.

One of the most significant changes that came out of the advisory group is project-based learning, where students work in teams to complete a welding project from start to finish – from reading blueprints to the fit, fabrication and welding of the final product.

"For a lot of students, welding is new to them, so project-based learning allows them to apply what they've learned in the classroom to real-world applications," said Eubank.

His students are also engaged in a variety of community services projects, which give them practical, hands-on experience to benefit various nonprofit groups and community members.

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"These projects provide true real-world experience from estimating and bidding jobs to following proper safety procedures and material handling," Eubank said. "This prepares them to work for a variety of organizations."

Recent projects have included fabricating a holiday light display at Lake Metroparks Farmpark in Kirtland, Ohio, to creating staircase railings for the Fine Arts Association in Willoughby, Ohio. They created props and decorations for a fundraiser for Rainbow Babies and Children's Hospital in Cleveland, repaired a trailer for a local police department, and built play equipment for the City of Willoughby Hills, Ohio, saving the city $100,000.

Over the last 10 years, students have given thousands of hours to community service projects.

"Through these projects, we capitalize on the lessons we are teaching students, including attendance, punctuality, communication and collaboration," said Eubank. "These represent the soft skills, which our advisory committee has identified as being a priority concern in hiring. The projects also alleviate pressure in job interviews by giving

Future Plans for Growth

The next phase of growth for the Welding N.O.W. program includes the addition of 16 welding booths for a total of 40.

Lakeland is also in the early stages of building a new lab for robotic welding, a need identified by the advisory committee. Once it's complete, Gandee wants to become an instructor.

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Long-term goals identified by the advisory committee include:

- Creating an outdoor training area
- Becoming an American Welding Society testing facility
- Offering courses to prepare students to become Certified Welding Inspectors
- Offering courses in the high-demand specialty of resistance welding
- Attaining approval for a bachelor's degree in industrial welding

"We want to become the first community college to offer a four-year degree in welding," said Eubank.

Lakeland's welding program has become a model for other schools with Eubank frequently called upon to teach educator workshops and share how Lakeland Community College successfully expanded their program. He recently received the American Welding Society Excellence in Welding Award for Education.

Sustaining the Industrial Welding Advisory Committee

As the Welding N.O.W. program continues to grow and evolve, the advisory committee will also continue. Existing committee members continue to stay on, with new members joining who want to add value by sharing their unique expertise.

"We want to bring more people to the table," Eubank said. "The more voices to be heard, the better the ideas."

Eubank also offers this advice for others who wish to form an advisory committee: "Don't plan anything for the first meeting. If you set the agenda, people will tell you what you want to hear. Let them be open and honest in telling you their concerns and challenges."

"Find those who are passionate," said Szlamas. "Look for leaders and entrepreneurs who've been down the hard road, but also those who are still in the trenches."

For the Welding N.O.W program, the advisory committee has become a positive force for change.

"The advisory committee gave us a new way of doing things and opened the lines of communication with our instructors," said Eubank. "They're a great team and our most powerful tool."

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