EDUCATION PARTNERSHIP STRENGTHENS UNIVERSITY CURRICULUM AND RELATIONSHIPS WITH LOCAL HIGH SCHOOLS



In the summer of 2022, instructors and administrators at the Roswell campus of Eastern New Mexico University needed to take their welding training program to the next level. Until then, the program – which offers AWS certifications as well as a two-year associate degree – had been based largely on the experience and expertise of individual instructors, but it was becoming increasingly apparent that they needed standardized training resources that were more responsive to the industry's need for certified welders to close the persistent skills gap.

After reviewing several third-party training and certification options, Dusty Baker – both the welding program director and the academic director of technical education at the university's Roswell campus – settled on the Lincoln Electric Education Partner Schools (LEEPS™) program.

The LEEPS program was formed in partnership with the National Coalition of Certification Centers (NC3) to provide schools with a comprehensive suite of portable, stackable national welding certifications to help create an educational path for the next generation of welders. LEEPS curriculum and materials support welding schools and programs throughout the U.S. with the most comprehensive and relevant welding education tools and resources available for advancing skill levels and the preparation needed to succeed in specific welding fields.

Since incorporating the LEEPS program, Eastern New Mexico University's welding training program at the Roswell campus has taken a giant step forward.

Doing their own thing

Prior to the fall semester of 2022, Baker and the school were taking an ad hoc approach to their welding program as they went along. He considered a few different third-party certification programs, but most of them felt like the students and the school wouldn't get a sufficient return on the required investment.



"We never really had anything in the way of an organized, unified approach to welding training," he says. "We were following the textbooks and pretty much doing our own thing. I am a certified welding inspector and a certified welding educator through AWS, so we had been giving the students tests, and if they passed according to code, we would write up certification papers for them. That was the approach since I've been here. Even when I was a student here myself, that's how it was done. But other than that, we didn't have any documentation to help students when they started looking for welding jobs."



Welding students completing preventative maintenance on the welding machines they are using in class.

In addition to the courses taught at the Roswell campus, Eastern New Mexico University has also offered dual credit courses to two local high schools over the past several years. However, maintaining consistency in the high school training had been an ongoing challenge.

"It was very difficult to keep those instructors accountable and make sure that they were following our curriculum when they were teaching it on their campus," says Baker. "So students who had gotten dual credit courses through high school and then came to me were way behind. They weren't up to speed with where they needed to be after taking the high school course. That's just the way it was for many, many years. I conducted multiple training sessions with them. I did everything I could think of to try to help them get those students to the level they needed to be at before they came to me. But nothing really seemed to work."

The LEEPS program: Choosing what works

When Baker's Lincoln Electric representative told him about the LEEPS program, the instructor was initially skeptical based on his dissatisfaction with the other options he'd already explored. However, after some consideration, he agreed to meet with representatives of the LEEPs program from Lincoln Electric and NC3.

"They explained what it was and how it worked," says Baker. "One of the things that appealed to me was the idea that it wasn't a requirement to incorporate everything. You could pick and choose based on what you wanted to accomplish in your training program and what equipment you had at your facility. It wasn't mandated that you had to do everything."

The content of the LEEPS certificate itself was also an important selling point for Baker. "The document lists the welds that the students mastered to earn the certificate," he says. "I think that's brilliant. It's more than just a piece of paper that goes into a student's resume packet or portfolio. Listing the actual welds on the back of the certificate gives the company an idea of what the applicant knows, what they know how to do, and what they had to do to earn the certificate."

Taking the LEEPStart

The LEEPStart[™] program closed the deal for Baker. It is designed to help high schools, career centers and other institutions provide an introduction to welding skills and concepts. The LEEPStart program provides core welding certification and instructional resources as a starting point to promote deeper career exploration.

The program addressed his longstanding concerns related to the two area high schools participating in the dual credit program with the university's Roswell campus.



Graduation day. From L to R - Graylen East, Armando Arellanes, Dusty Baker.

"The high school instructors would get the same training as what we would be getting here at the university," says Baker. "They'd get the same tools I have and incorporate them into the same courses we teach here. And they'd be held accountable, not only by me but also by NC3 and Lincoln Electric. So, it would help me help them, in a sense, to get it up to a certain standard."

With that mutually beneficial opportunity in mind, Baker initiated some discussions with the instructors, academic counselors and administrators at the high schools.

"I told them about this opportunity that they had that would help their students transfer from them to me more seamlessly," he says. "The administrators were completely on board with it. They loved the idea of making it easier for students, and they loved the idea of students getting certificates while still in high school. Among other things, it helps them with their funding."

The LEEPStart program is a critical first step in the process of welding training, according to Dan Klingman, Manager

of Educational Programming at Lincoln Electric. "It offers introductory instruction that could lead to further education at a community college or some type of post-secondary educational institution," he says.

Smooth transition

Incorporating the LEEPS program into the existing welding program at Eastern New Mexico University was "simple," says Baker, and the interface with Lincoln Electric continues to be productive and satisfying a year after launching the program.

"The customer service to instructors and administrators is excellent," he says. "I can pick up the phone if I'm having an issue, and I can talk to somebody who's going to help me right then and there, and I'm not going to get shuffled around through all kinds of different channels. There are a lot of aspects that Lincoln Electric brings to this program that are just amazing."

"Incorporating it into our program was very simple. Maybe it's because we were already teaching pretty close to that standard at the college. What we had been doing was very similar to the curriculum that Lincoln Electric provided, so it was easy to move that in and start using it."



Dusty Baker – welding program director and academic director of technical education

"Lincoln Electric will continue to update the curriculum and add relevant certifications to the LEEPS program," says Klingman. "Dusty has done a great job of leveraging the LEEPStart program with the local high schools and then offering additional training at the post-secondary level.



Dusty Baker evaluating a GMAW weld with a student.

Knowledge and skills spike

After only a year, Baker has yet to accumulate sufficient data to track the long-term career trajectories of students participating in the university's LEEPS program. However, "the caliber of knowledge and skill that these students have now compared to what we have before is a lot higher," he says.

"Before we implemented the LEEPS program here, I could ask a student at the end of the year a simple question – explain to me what E7018 electrode is, for example – and some of them could answer it and some couldn't, just because they weren't being exposed to it as much then as they are now," Baker explains. "And I didn't realize that until we started getting into this program where they're exposed to a lot more. So that makes them remember a lot more. It makes them more knowledgeable and more able to retain some of that information—along with the skill portion of it."

In addition, the amount of actual welding the students do within the LEEPS program is twice what they'd been doing previously.

"We were concentrating on those AWS certification tests a lot," says Baker. "We're still concentrating on them, but we have been able to move scheduling around a little bit to promote everything the LEEPS program has to offer. It has made a difference in the number of students passing the welding certifications. We've had more pass the certification tests this year than ever."

But it's more than just the university's welding certification program that's reaping benefits from the LEEPS program, says Baker. The pursuit of a full, two-year associate degree has become a more attractive option as well.

"I remember years when we wouldn't have any associate graduates in a graduation ceremony," he says. "Whereas now, actually, the students who started with me last fall, they'll be graduating next spring, spring of 2024, with associate degrees. Eighteen out of twenty-five students who started at that time are pursuing associate degrees."

And thanks to the university's involvement in the LEEPStart program, which includes instructor training events and certification curriculum (commonly referred to as the "trainthe-trainer" component), Baker has been able to bring four additional area high schools to the university's existing dual credit program.

"I talked to the instructors at those schools, and I talked to their administrators and got them on board," he says. "Now we have six high schools doing dual credit, and all of them have been participating in the train-the-trainer events, and they're all participating in the LEEPStart program."



Students are practicing welding pipe in outdoor welding booths.

Front-end buy-in

Baker's implementation of the LEEPS program at Eastern New Mexico University-Roswell was the ideal confluence of vision and initiative by all parties, says Klingman. "Lincoln Electric and NC3 provided the tools for the schools to become successful," he says. "Dusty has implemented the tools to provide secondary education students with an additional pathway for furthering their education."

Baker prides himself in maintaining a daily commitment to his students' well-being – as individuals and as a group, not just at the academic and professional levels, but at a personal level. Like Klingman, he sees the LEEPS program as an effective tool in that strategy.

"The LEEPS program ties the student to where they want to be in the industry," he says. "It enables instructors and schools to do that on the front end instead of the back end. You're taking what industry is saying they want and using that information to train students and prepare them for a career in the industry. You're establishing industry buy-in from the beginning of the student's journey rather than at the end. I don't think you can get that anywhere else."

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