

ODESSA COLLEGE LEEPS PROGRAM

ODESSA COLLEGE LEEPS PROGRAM STANDARDIZES AND STRENGTHENS WELDING TRAINING

When Muhammad Naqvi became the chairman of the Industrial Technology Department at Odessa College in Odessa, Texas, welding instructors at the school – like teachers and administrators at many such schools – were doing their best with the materials and resources at hand. The welding instruction program was generally successful, but Naqvi and his colleagues knew things could be better.

The answer was the Lincoln Electric Education Partner Schools (LEEPS) program, which Naqvi implemented in 2022. 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.



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Odessa College is a public junior college with an enrollment of about 8,000 students per semester. The school offers a range of two- and four-year degrees and certifications in a range of liberal arts, STEM and trade programs. The welding instruction program within the Industrial Technology Department runs the full gamut: introductory and advanced stick, TIG, MIG, flux core and submerged arc welding. They also teach layout and fabrication techniques as well as automated welding systems.

Even before Naqvi became department chairman in 2019, he and then-chairman Jim Mosman visited several comparable schools throughout the region with similar welding programs. "We saw that every instructor is trying their best to train their students," says Naqvi. "In the same way, we were using different books and different curriculum at Odessa in order to give our students the best education possible. That is always the goal. But when we came across the LEEPS curriculum, it was all very well structured and well organized, all the way from the very first class to the end of the class. It doesn't matter what stage or level the student is."

STRUCTURE

Unlike the prior strategy at Odessa College of piecing together instructional content from different books and different programs, the LEEPS program provides a clear roadmap for both the instructors and the students. "They are following a specific curriculum and a specific plan," says Naqvi, "so the students can be successful not only in the classroom but also in the workplace after they leave the classroom."

The curriculum starts with the most basic principles of welding, including safety. From there, it transitions to the introduction of various processes and techniques. Depending on the certification the student is pursuing, the curriculum will cover electrodes or gases.

Since implementing the LEEPS program, Odessa College has boosted its per-semester enrollment of welding students from approximately 250 students in 2020 to approximately 650 in 2023 and 2024 – a 160-percent increase over four years. Through the program, the school now offers forty or more welding certifications, compared to the much smaller numbers that had been available previously.

"Before this program, we were giving our students one or two certifications, depending on whether they passed 1G or 2G," says Naqvi. "But now – looking at last year for example – our students earned a total of more than 1800 certifications. That's a big change. So if one student was earning one or two certificates in, for example, SMAW, they are now earning 18 certifications. And these are industrial-based certifications, so this is a big difference. And this is just in one class. If a student is in three or four classes, they can multiply those numbers and come up with thirty or forty certifications – maybe more. That's a huge difference."

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The increase in certifications leads to greater advantages in the job market, he adds. Two years into the LEEPS program, 90 percent of the welding students at Odessa College are securing employment prior to finishing their certification.

SUPPORT

Buy-in from the school administration was immediate, says Naqvi. The interim dean for the School of Business and Industry at Odessa College was already familiar with NC3 and the LEEPS program – and how LEEPS compared with other programs – so she was immediately on board as the program was taking shape.

“But I can imagine that it can be very difficult if you do not have the support of the administration,” says Naqvi. “Everybody wants to know why we’re doing this, why we have to pay this much money when we were getting along fine before. But at Odessa College, we never had that issue. I was supported from the get-go.”

A few faculty members were reluctant at first, but they eventually embraced the idea of implementing a new program to upgrade the curriculum and the teaching approach.

“There were some who wondered how we were going to do it,” says Naqvi. “Change can be very hard for anybody. We had to convince them that this would be very beneficial for the college and for the students as well, because we need to learn how to help our students in order to be recognized as a successful school where a quality education is available. When we started using the LEEPS program, it was very easy, very structured, very well organized. So now, everybody’s very happy.”



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Like any educational program at any school, the LEEPS program at Odessa College is only as effective as the person at the helm, says Jim Mosman, who launched the program with Naqvi before retiring from the school and taking a position as Senior Customer Training Instructor at Lincoln Electric's Welding Technology and Training Center at the company's main headquarters Cleveland, Ohio.

"I've watched Muhammad grow since he first came to Odessa College as a student in 2010, and then became an instructor in 2014," says Mosman. "When I left the college after 21 years, I asked myself, 'Who is the best person to take the LEEPS program to the next level?' The increased student enrollment over the last few years – along with the increased number of certifications in that time – demonstrate a high level of commitment on Muhammad's part, and a high level of success on the part of the LEEPS program under his direction."

A successful LEEPS program starts with a vision, says Naqvi. "Whether you're an instructor or a student, you have to set a goal," he says. "My goal is to make sure that we give our students the best education possible. Because when the students come to Odessa College or any other welding program anywhere else, they have challenges before they even get here. They have financial challenges, social challenges, or maybe they're struggling with problems at home. As an institution of learning, it's our job to reduce as many of those barriers as we can by providing curriculum that is well structured and well organized, like the LEEPS program is. That curriculum is going to help them reduce many of those barriers."

"Muhammad, with the assistance of the LEEPS program, has successfully achieved his goal of enhancing Odessa College's welding program," says Dan Klingman, Manager of Educational Programming at Lincoln Electric. "As a LEEPS school, Odessa College has become an extension of the Lincoln Electric Welding School community. The LEEPS program provides valuable resources and support to welding educators like Muhammad, enabling them to take their programs to new heights. We are proud to have Muhammad and Odessa College as an extension of our community at the Lincoln Electric Welding School."

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