We hear it over and over: Jobless rates remain depressingly high. Employers are increasingly looking for candidates with bachelor's degrees or more. And yet, there's a mass shortage of qualified welders?

So says the U.S. Department of Labor, and the situation is expected to worsen considerably over the next few years.

El Camino College has launched a program that aims to fill a few of those jobs with local students by summer. This fall, the Torrance-area community college kicked off its Career Advancement Academy, which trains students in welding and machine tool technology, as well as catches them up in reading, writing and arithmetic.

The course — made possible by a one-year, $662,700 grant from the California Community Colleges Chancellor's Office — will culminate with a job fair in the spring exclusively for students with passing grades. (Administrators plan to apply for two additional years.)

With just 60 students enrolled, their odds of landing a job with the likes of Boeing, Northrop Grumman, Triumph Aerostructures or any other company in attendance are pretty solid.

That's music to the ears of 26-year-old Monica Estrella, the only female student in her welding class. She's been unemployed since January.

"It's time to be working now," said the 2003 graduate of Carson High School. "It gets boring doing nothing. You just don't know what to do with yourself."

The academy bucks a current trend in education that favors prepping students for the university track over vocational studies, on the rationale that more and more jobs require a four-year degree. But manufacturers are also having trouble finding skilled workers.
450,000 jobs by 2014

Industry analysts say the welding trade sees about 50,000 retirements annually, compared with 25,000 new hires. The U.S. Department of Labor estimates there will be 450,000 open welding positions by 2014. The biggest factor is an approaching tidal wave of retirements — the average welder is in his or her mid-50s, according to the agency. And the job, with its toxic fumes and ultrabright flames that can damage the eyes, isn’t amenable to older workers.

So desperate are companies to fill open slots that they are often willing to hire welders with criminal records, instructor Renee Newell said.

“We have employers who say, `As long as somebody shows up for work, they have the skills — I’m happy to employ them,’” she said.

Also in high demand are machine operators.

“There are stories of companies whose facilities are across the street from each other fighting over a single employee who can operate a particular machine,” said Naomi Tokuda, coordinator of the program.

The Career Advancement Academy targets the young — eligible students must be 18 to 30 years old — because industries are hoping to hire for the long term. Between a quarter and a third of the students at El Camino’s academy are high school dropouts. And a few do, in fact, have criminal records.

Although El Camino already offered welding and machine tech classes, the Career Advancement Academy is distinct in how it also requires students to take a slate of academic courses such as math and English. It also has them bone up on skills that help one to land — and keep — a job: interviewing, resume-writing, interpersonal skills and the like. Their books are paid for, and about half the students qualify for tuition waivers.

“These guys need to be able to convert decimals to fractions,” Tokuda said. “They gotta be able to do it — they are reading blueprints. And the kids are like, `Yeah, I learned how to do it but I’m really rusty. I haven’t done that in years.’”

Hourly wages up to $45

Students can expect to land jobs for about $15 an hour, with full benefits. But Newell said the hourly pay ranges from about $9 to $45 an hour. (She advises students against accepting positions on the low end.)

The money and the potential employability can be a lure for students who have fallen on hard times.

Sergio Basio, 20, dropped out of high school, thinking he would scrape together a living working at Subway and T.J. Maxx.

“I was just being dumb, like I was too cool for school,” he said.

After two years of struggle, he decided to return to high school a few weeks shy of his 20th birthday. He quickly made up for lost time through independent studies, completing nearly 50 credits in two months.
"I've seen how hard you have to work to get a check — you're breaking your back," said Basio, adding that he isn't certain whether welding is something he would like to do for a living.

Other California community colleges have launched their own Career Advancement Academy programs. The specifics of the grants are tailored to each region's unique economies. For instance, in Wilmington, Harbor College's academy — which ended in 2010 after a five-year run — trained students to become process-plant operators for the area's oil refineries. El Camino's offerings are meant to appeal to the nearby aerospace industry.

A man's field, but ...

Welding is one of those professions dominated by men, although women's share of the field inched up from 5 percent to 6 percent in the five years ending in 2005, according to the Department of Labor.

As it happens, the instructor of the welding portion of the academy is a woman. Newell, a USC graduate, has a broad range of experience. In addition to teaching industrial welding at El Camino, she teaches artistic welding at Los Angeles Trade Technical College.

A few years ago, she was among the artists featured on the former Discovery Channel show "Monster Garage," hosted by TV personality Jesse James. Her team converted a Chevrolet Impala into a Zamboni, a resurfacer for hockey and ice rinks.

The work, though physically demanding, can be extremely fulfilling, she said.

"I'm hooked for life," she said.

So might be Ernesto Castellanos, a 2011 graduate of Hawthorne High School. He discovered his talent there as a freshman.

"I guess I was born with the skill of welding," he said. "Others found it hard, but I find it really easy."

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