



MONICA JORGE

Andre Santiago uses a microscope during a class in materials and process manufacturing at Goodwin College in East Hartford. The program gives students real-life experience working with advanced testing and computerized lab equipment.

## JOB-READY

# What Industry Needs

## Advanced Manufacturing Programs Teach In-Demand Skills

By **CARA ROSNER**

**C**onnecticut manufacturers need to hire thousands of workers but struggle to find qualified candidates. Area colleges are answering the call with advanced manufacturing programs that produce job-ready graduates.

The programs are key, proponents say, in ensuring manufacturers can

keep up with growing demand for their products.

“We customize our programs and courses around industry needs, so that when students graduate here they are assured a job,” says Al Pucino, program director of manufacturing management and program director of quality management systems at Goodwin College in East Hartford.

Goodwin’s program started about four years ago and offers various

options to students, including a certificate course in computer numeric controlled (CNC) machining, a skill many manufacturers say the workforce needs.

For Ronald Gatchell of Cheshire, the program offered a change of pace after working 25 years in health care management. He has been a part-time student in Goodwin’s program since 2013 and is working toward a bachelor of science degree

in manufacturing management. He also is operations manager at Glastonbury-based RGBSI, a global workforce management company, and says he uses skills he learned at Goodwin daily.

“Many or all Goodwin professors specific to the manufacturing program are from Pratt & Whitney, who are able to impart knowledge they have collected over 30-plus years of hands-on experience,” he says. “They are not just teaching from a book, but are able to give the students knowledge from their experience. The Goodwin manufacturing program is very robust for being such a young program, with the most up-to-date textbooks and new, state-of-the-art, modern manufacturing equipment.”

Pucino says the CNC program is the most popular at the school, but Goodwin also offers associate’s degree programs in quality management services as well as in logistics and the supply chain. There also is a bachelor’s degree program in manufacturing management.

Connecticut manufacturers have been candid about their struggles to fill jobs. They expect they will need to fill 13,600 jobs by next year, but worry about their ability to do so, according to the 2017 Survey of Connecticut Manufacturing Workforce Needs published in May.

The survey, with responses from 157 business leaders, was done by the Connecticut Business and Industry Association and the National Science Foundation Regional Center for Next Generation Manufacturing. It found 99 percent plan to add jobs over the next three years.

Manufacturers face several hurdles: 27 percent have employees leaving for other jobs with better pay and benefits; 20 percent are losing workers to retirement; 47 percent said employees lack employability, punctuality and work ethic; and 71 percent said workers lack technical skills.

“You just can’t find qualified, skill personnel. We just can’t,” says Susan Alberto, quality assurance director at South Windsor’s Evolution Aero.

“We’re in this bind,” says Alberto,



MONICA JORGE

Al Pucino, second from left, who is program director of manufacturing management and quality management systems at Goodwin College, says he and leaders of similar programs continually talk with area employers to assess their needs.

who is on advisory boards for Goodwin and Manchester Community College’s (MCC) manufacturing programs. “There’s a lot of work; manufacturing is not going to go away. But it’s not just a mediocre-skilled labor job anymore. It takes a lot of education.”

At Goodwin, based on industry feedback, the college is doubling the size of its CNC lab and building a new lab to launch a welding program.

Some people still associate manufacturing jobs with working in a dark, dingy factory — but that’s simply not true, says Sharale Golding, interim division director for STEM at MCC. Many of today’s manufacturing jobs are high-tech and high paying.

“It was important for us to tap into what the manufacturing workforce was telling us they needed,” says Golding, and nearly all graduates quickly land jobs as a result. “Our graduates have been snapped up.”

Changing the stigma associated with manufacturing is an important component of growing the future workforce, says Frank Gulluni, director of manufacturing technology at Asnuntuck Community College in Enfield. He has overseen the program there for 20 years and estimates 10,000 students have passed through.

He makes a concerted effort to reach out to middle and high school students, as well as their parents and guidance counselors.

“The wages are phenomenal, the benefits are unbelievable,” he says. “The future is rosy. It’s just a matter now of communicating with parents and educators, in particular, who are still mired” with preconceived notions about the industry.

Students who complete the Asnuntuck certificate program graduate with 34 college credits they can put toward an associate or bachelor’s degree, Gulluni says, but about 85 percent of graduates immediately enter the workforce.

The program has several focus areas: CNC machining, electronics and electromechanical, and welding and fabrication. Gulluni said its next focus area will be 3-D printing.

Asnuntuck’s model has been emulated at Housatonic Community College, Quinebaug Valley Community College and Naugatuck Valley Community College, with more to come.

For students who show the initiative, endless employment potential awaits, says Alberto.

“There are so many options once you get into this manufacturing sector,” she says. “There are tons of opportunities.”