Mechatronics at Motlow, Bridgestone, train students for high-tech careers
Mechatronics program prepares students for well-paying jobs

For 21-year-old Terrance Payne, the Mechatronics advanced-manufacturing training offered by Motlow State Community College at the Bridgestone plant in La Vergne is a step toward a good-paying job.

And for 49-year-old Jody Griffin, it’s a chance to change course after a 20-year career in another field and find something she really wants to do.

But for 34-year-old Bryan Powell, the program offers an opportunity not only to keep up with the skills and knowledge of younger workers coming in behind him in his current job, but also to prepare for advancement so those younger workers aren’t promoted over him.

Twelve students of varying backgrounds are the first class in a joint effort between Motlow and Bridgestone to offer international certification and eventually even college degrees in the kinds of high-tech manufacturing processes used by companies such as Bridgestone in La Vergne and Nissan in Smyrna.

Jobs go unfilled
With a combination of mechanics, electronics and heavy doses of computer and robotics technology, Mechatronics trains workers for jobs that remain open for lack of qualified applicants.

“Thousands of jobs are going unfilled because of a lack of trained workers, and the problem goes much deeper than Bridgestone,” said Keith Hamilton, manager of the North America Manufacturing Education Center at the company’s La Vergne tire plant, which is hosting the Motlow Mechatronics program. “We need to begin the process of building a workforce.”

Nashville-based tire maker Bridgestone Americas, which also has a plant in McMinnville, Tenn., helped get the first Motlow Mechatronics program started in McMinnville more than two years ago and pledged space at the La Vergne plant to expand the program there this fall.
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Bridgestone is among many companies nationwide competing to recruit workers with the necessary technology skills, said Barry Owens, vice president of the Bridgestone Americas Manufacturing Group.

“There are more than 600,000 skilled-manufacturing positions in the United States that are unfilled because of a shortage of qualified workers,” he said. “We’re trying to address that situation by helping establish training programs.”

Bridgestone and Nissan, which also has a plant in Decherd, Tenn., already have hired some of the McMinnville graduates, said Fred Rascoe, director of the Motlow Mechatronics program.

“When they finish our program, they have a career, not just a job,” he said.

Building a future

At the Bridgestone center, the Mechatronics program has two labs full of state-of-the-art equipment made by the same companies that furnish the gear for the automated assembly lines at modern manufacturing plants such as Bridgestone’s and Nissan’s. Students attend classes five hours a day.

Besides benefiting Bridgestone and Nissan, the Motlow program will help train workers for plants that make products such as household appliances and other consumer goods, Rascoe said.

“This program is about teaching high-tech skills for advanced manufacturing, promoting critical thinking and problem-solving, and it offers international certification” that the graduates can take with them wherever they go, said MaryLou Apple, Motlow’s president.

The program will soon be the only one in the United States to offer “a three-step pathway for advanced-manufacturing education,” Apple said. The first two steps are a one-year Mechatronics certification and a two-year associate’s degree, both through the Motlow program. The third step will be a continuation of the program at Middle Tennessee State University that will lead to a bachelor’s degree in mechanical engineering.

Payne, of Murfreesboro, wants to complete the certification part of the program first, then get a job in an advanced-manufacturing setting and continue working part-time on his associate’s degree.

“I heard about the program at church and hope this will allow me to have not only a job, but a real career,” he said. “It’s something I believe I can build a future on.”

Powell, of Lynchburg, Tenn., already has a good job as a manufacturing maintenance technician at a plant in Shelbyville, Tenn., but he’s seeing an increase in new technology coming into his workplace — and younger, better trained people being hired to maintain that equipment.

He not only wants to hold his place in the plant, but also to advance to higher-paying positions with more responsibility. To do that, he enrolled in the Motlow program and now goes to school during the daytime — while continuing to work a full night shift at the plant. Most days, he gets no more than three hours of sleep. But after the first eight weeks, he has the highest grade average in his class.

“He’s my star student, and it’s amazing how hard he’s working and how committed he is,” said Shane Buchanan, one of the program’s instructors. “We have a really good group of students, and all of them are working hard and taking this very seriously.”

Griffin, of Smyrna, said she was initially “terrified” at the thought of switching careers at age 49, after 20 years as a cable TV technician, working high up on utility poles most of the time.
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“I’ve always been in electronics, which I started when I was in the military,” she said. “But when I heard about this program, I decided to go back to school and try something that isn’t done 30 feet in the air. I want to be a maintenance tech in a manufacturing facility, but my ultimate goal is a bachelor’s degree in engineering.

“Yes, I’m scared to death to try this, especially at my age and because I’ve never been to college,” she said. “Everybody in my class is like, 12 years old. My instructor is 12. But I’m studying more away from school than the hours I spend in school, and I feel great — I feel like I’m 20.”

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