

Potential for Roane State mechatronics program in Clinton excites new director Gordon Williams

Engineer and educator Gordon Williams has been named director of Roane State Community College's mechatronics program.

Williams, a veteran teacher in Oak Ridge and Anderson County, brings over a decade of education experience to Roane State along with 20 years of experience in manufacturing. He previously taught engineering courses at Oak Ridge High School and was the faculty sponsor for the high school's elite robotics team.

"It was a great fit," Williams said of becoming director of Roane State's mechatronics program. "This is something I have always wanted to do. It's a tie between working in industry and in education. I am excited."

Based at the college's Clinton Higher Education and Workforce Training Facility, Roane State's mechatronics program trains students to become technicians who operate, maintain and repair high-tech automated manufacturing systems.

The college has a one-year certificate program in mechatronics. Beginning in the fall, Roane State will also offer a two-year associate of applied science program made possible through a \$970,000 state Labor Education Alignment Program (LEAP) grant.

High school students in Oak Ridge and Anderson County will be able take the first year of the program as dual credit courses. The Clinton-based program is also a great fit for recent high school graduates and for adults who want to go back to school, Williams said.

"I think this a great challenge — the opportunity to build this program and to work with the high school students and to work with adult learners," Williams said. "I am really excited about taking on the task of growing this program from the ground up."

Williams has a bachelor's and master's in engineering from Texas A&M University. He worked in textile manufacturing for 20 years before becoming an educator. He taught in Anderson County for seven years and at Oak Ridge High School for seven years.

Williams said he's looking forward to teaching students the range of skills required for mechatronics, a field he expects to grow and produce more job opportunities. Mechatronics jobs are not the traditional, repetitive-motion tasks people often associate with manufacturing, Williams said.

"The repetitive motion is done by the machine," Williams said. "Mechatronics technicians are the people who make sure the machines are running right and make changes to the machine as the product changes. You have to be innovative. You've got to be creative. You have to be able to work as a team. You have to be able to work across disciplines and communicate."

Developing communication skills and teamwork skills is one of the goals of the associate degree program. The program blends technical courses with traditional academic courses such as English and speech that help students develop the analytical, communication and teamwork skills employers want.

Williams noted that the program has received strong support from industry partners. Having the program based in Clinton, he said, is a significant advantage.

“We have a great facility as far as space,” Williams said. “It gives us a chance to grow. Mechatronics is just the start. We want to get into other aspects of advanced manufacturing, and this facility will give us the space to do that. We are in a central location, and we can bring in a lot of incumbent workers and give them a chance to train and advance their careers, and we are close to a lot of industries that are helping us to succeed.”

To help students succeed, the program offers a variety of pathways to a career. A student could complete the one-year certificate and become qualified for mechatronics jobs. The two-year degree could help a student qualify for more advanced career opportunities and prepare them to potentially transfer to Middle Tennessee State University and pursue a bachelor’s degree in mechatronics engineering.

Whether a student is an adult, in high school taking mechatronics as dual credit, or just out of high school, the program provides excellent opportunities, Williams said.

“They have great job prospects,” Williams said. “The folks who have gone through the certificate program have gotten raises or promotions. The companies are expanding, and they will take as many trained technicians as we can send them. There are so many opportunities to advance. You are not stuck. There is always something new to learn, and if you have the fundamentals of mechatronics, it can open lots of doors for you.”

For more information about the mechatronics program, contact Williams at (865) 354-3000 ext. 4899 or williamsgl@roanestate.edu or visit roanestate.edu/mechatronics.

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