

October 8, 2015

ASU Mid-South Mechatronics Program Offers High-Demand Training

Driven by demand from packaging companies, mechatronics has become the standard for industrial maintenance, and Arkansas State University Mid-South offers a program designed to lead to great careers.

What is mechatronics?
“Mechatronics is the new term for what companies are looking for in industrial maintenance,” said John Judd, ASU Mid-South Lead Faculty for the program. “Years ago, industries employed electricians, millwrights, and mechanics in the maintenance department. Now companies want someone who can do all of those tasks. They’ve taken all the disciplines in the industrial maintenance world and combined them into one – mechatronics.”



Highly-trained technicians deal with electrical, mechanical, and electronic issues while working to keep businesses rolling, particularly in packaging.

“The packaging industry has really driven this over the years,” Judd explained. “Packaging machines are generally small, compact, and high speed with lots of pneumatics, PLC controls, and automation. Companies needed a specialized maintenance person who could handle all of those different disciplines.”

The job outlook for mechatronic technicians is excellent, particularly in the Memphis region, Judd said.

“There is a very good market for people with these skills. The Federal Express hub in Memphis has 400 mechanics who take care of the conveyer systems in the sort operation. That

doesn't count aircraft or anything else. The average age of an industrial maintenance worker is 52 years old. So over the next 10 years, they're going to be replacing the bulk of 400 mechanics.

"And it's not just FedEx. Hino just completed a big expansion, and they're needing mechanics. The last I heard they wanted 40. J.R. Simplot wants half a dozen. Technicolor in Memphis wants 20 or 30. BASF is trying to train 40 people. So the need is there; it's everywhere. We're getting calls every day from people wanting industrial maintenance people, so we're constantly trying to fill the program and get people ready to go."

ASU Mid-South's program is divided into four certificates of proficiency. The first two focus on basic electricity and mechanical skills, and the second two delve into programmable logic computers (PLCs) and electronic motor controls and laser alignment.

"The way we have the certificates laid out you should have enough skills when you finish the first semester to get an entry-level job somewhere. Definitely after the first year, you should be a good Level I maintenance technician. You should be well rounded after the first year. The last two semesters you get all the advanced, specialty training – the fun stuff."

The three most basic courses are offered every semester so would-be mechatronics technicians can start the program in August, January, or June. Thanks to online delivery of the theory portion of the class, students can maneuver around work schedules to complete the program.

"You can do all of the theory work on your own time at home, nights and weekends, and do your lab work during the week," Judd said. "You're getting all of your contact hours and knowledge at your convenience. We've also developed an open-lab concept where you don't have to be here Tuesday at 3 o'clock, say. You can come at 5 o'clock, 7 o'clock or 8 in the morning, whatever works best for you. We're trying to be as accommodating as possible."

Students who successfully complete courses will have the opportunity to pursue Packaging Machinery Manufacturers Institute certification. PMMI offers testing and evaluation in Electrical I and II, Mechanical I, PLC, Motor Control, and Fluid Power.

"At this point, they are the only accreditation group that is nationally recognized by the U.S. Department of Labor and The Manufacturing Institute for industrial maintenance," Judd said. "They will eventually have 11 certifications when they get them all written. We're actually a partner school with PMMI, and I'm helping develop the testing for the new certifications."

Judd, who learned about mechanics from his grandfather and developed electrical skills in high school, described industrial maintenance as "fascinating."

“You’re never doing the same thing. There’s not really a standard for anything in terms of equipment. Everybody specializes in their own thing, but when you have a good, solid foundation of all the basic skills and understand how everything plays together, you can go in and do the job. Students who complete our program will have the troubleshooting and analytical skills to figure out what’s what, how something works, how to fix it, and how to maintain it.”

Judd said technicians also develop a unique bond while working together to meet the workplace challenges.

“You usually see that maintenance groups are tight knit because you never know when you’re going to have to depend on a coworker for your life. There’s a trust and a comradery that goes with it that you generally don’t see in most production environments.”

For more information about Mechatronics at ASU Mid-South, visit the college at 2000 West Broadway in West Memphis, call the Admissions Office at (870) 733-6728, see the website at www.asumidsouth.edu, or email admissions@midsouthcc.edu.