

Students get their first in-depth exposure to the Electro-Mechanical Engineering Technology major, the Modern Manufacturing Work Study program, and to the modern manufacturing industry, at Columbus State's four-day Advanced Automation Institute.

Three days are spent in the Integrated Systems Technology lab, where students get an overview of program and industry topics such as electrical systems, contextualized math, fluid power and mechanical drive systems.

DAY 1
DAY 2
DAY 3
Overview of the Integrated Systems Technology Lab



On their final day of the Institute, students and teachers from partner schools tour a partner company's plant to learn more about career opportunities for Columbus State graduates.

DAY 4
Plant Tour



The Advanced Automation Institute is open to students who are entering the Modern Manufacturing Work Study program, or high school students who want to explore the possibilities.

Columbus State Modern Manufacturing Work Study students get a behind-the-scenes tour of the Honda manufacturing facility in Marysville, Ohio.



Partnerships changing the face of today's college education.



csc.edu/modernmanufacturing

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Preparing the next generation of Electro-Mechanical technicians.

MODERN MANUFACTURING WORK STUDY AT COLUMBUS STATE





ERICA MILLER

“What I really like about this program is that it combines electrical engineering and mechanical engineering, which means more career options,” says Erica Miller. Now in her second year of the program, Erica attends classes two days a week and works the other two days repairing and maintaining robotic equipment. “What you learn on the job and what you learn in class really build on one another.

“When I found out I could get a paying job while I was in school doing something I love, and be a candidate for a full-time job with a great starting salary when I graduate—it seemed like a perfect choice,” says Erica. “If I work hard, my future is in great shape.”



ANTON DELA FUENTE

Anton’s path into engineering began in high school studying Science, Technology, Engineering and Math (STEM) through Project Lead the Way. His credits transferred directly into Columbus State and toward his Electro-Mechanical Engineering degree.

“It was a smooth transition from high school to college and now I’m here,” Anton says of his job at Honda. In the Modern Manufacturing Work Study Program, he worked part time making \$18 an hour. Upon graduation, Honda offered Anton a full-time position as a robotics technician. He also is continuing his education, pursuing a bachelor’s degree in Engineering from Miami University Middleton.

The demand for Electro-Mechanical support technicians is at an all-time high. These highly trained professionals are the backbone of virtually all industries, providing design support and maintenance service for the electro-mechanical systems that are critical to production.

As a part of the Modern Manufacturing Work Study program at Columbus State, you are on the ground floor of solving the skills gap, connecting highly trained workers to jobs with competitive pay, and keeping industry moving forward.

INDUSTRY ► PIPELINE TO TAILORED TALENT

Columbus State’s Modern Manufacturing Work Study industry partners not only have a direct pipeline to a highly trained workforce, they also have direct input into the program design to assure that graduates have the specific skills they need on the job.

Our labs include the latest equipment and our faculty stays abreast of changing technology and evolving industry standards, so students learn the technical skills they will need to work on today’s advanced systems. We’re committed to continuous improvement of both our facilities and curriculum through close collaboration with our partner companies.

Students are hired by our partners on a part-time basis, providing the opportunity for on-the-job training and acclimation to company procedures and environment. So partner companies have proven performers ready to step into a full-time position upon graduation.



“This is a very unique collaboration...coming together to develop a curriculum and offer opportunities that provide career-technical training.”

Scot McLemore
Manager of Talent Acquisition and Deployment
Honda North America, Inc.

EDUCATORS ► STUDENT AND COMMUNITY CONNECTIONS

Secondary schools and districts provide students a starting point through Project Lead the Way and College Credit Plus STEM courses. Students earn college credit that transfers directly into the associate degree program at Columbus State.

Four-year colleges provide articulation agreements that allow Columbus State graduates to continue on to earn a bachelor’s degree. And everyone benefits from the strong ties with community that develop by working together for students.

STUDENTS ► COLLEGE TO CAREER, NON-STOP

Never before has the value of an education been as quantifiable as it is in Columbus State’s Modern Manufacturing Work Study Program. In two years, our students can walk into a high-demand, high-paying position—often without ever having to search for employment!

After just two semesters of content-heavy classroom/lab instruction, Modern Manufacturing Work Study students begin a part-time job with one of our partner

companies. They finish their Electro-Mechanical Engineering degree working three days a week and attending class the other two, for a unique combination of theory and applied training.

Students receive intense instruction in fluid-power, electrical, mechanical and robotic systems, preparing them to step into a full-time position with little additional training. Partner companies are eager to hire successful graduates, creating a virtually guaranteed career path in this high-demand field.

Employers and educators who are interested in becoming part of the Columbus State Modern Manufacturing Program are invited to visit csc.edu/modernmanufacturing or contact:

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Path to Industry ►

ELECTRO-MECHANICAL ENGINEERING ASSOCIATE DEGREE						
High School	Summer	1st Semester	2nd Semester	3rd Semester (summer)	4th Semester	5th Semester
College credits earned vary by school	► Advanced Automation Institute	First Year Experience	Physics	Robotics	Manufacturing Materials & Processes	Basic AC Electronic Systems
	Manufacturing Plant Tour	Motors & Control Logic	Control Logic & PLCs	Welding: Intro Stick	Machine Tools	Data Acquisition Systems
		Industrial Applications & Software	Basic DC Electronic Systems	Basic Mechanisms & Drives	Social Behavioral Science elective	Humanities elective
		Engineering Graphics	Basic Digital Systems	CAD I		
		Mathematics	English Comp I	Technical Writing		
			Interviews	Work Study	Work Study	Work Study