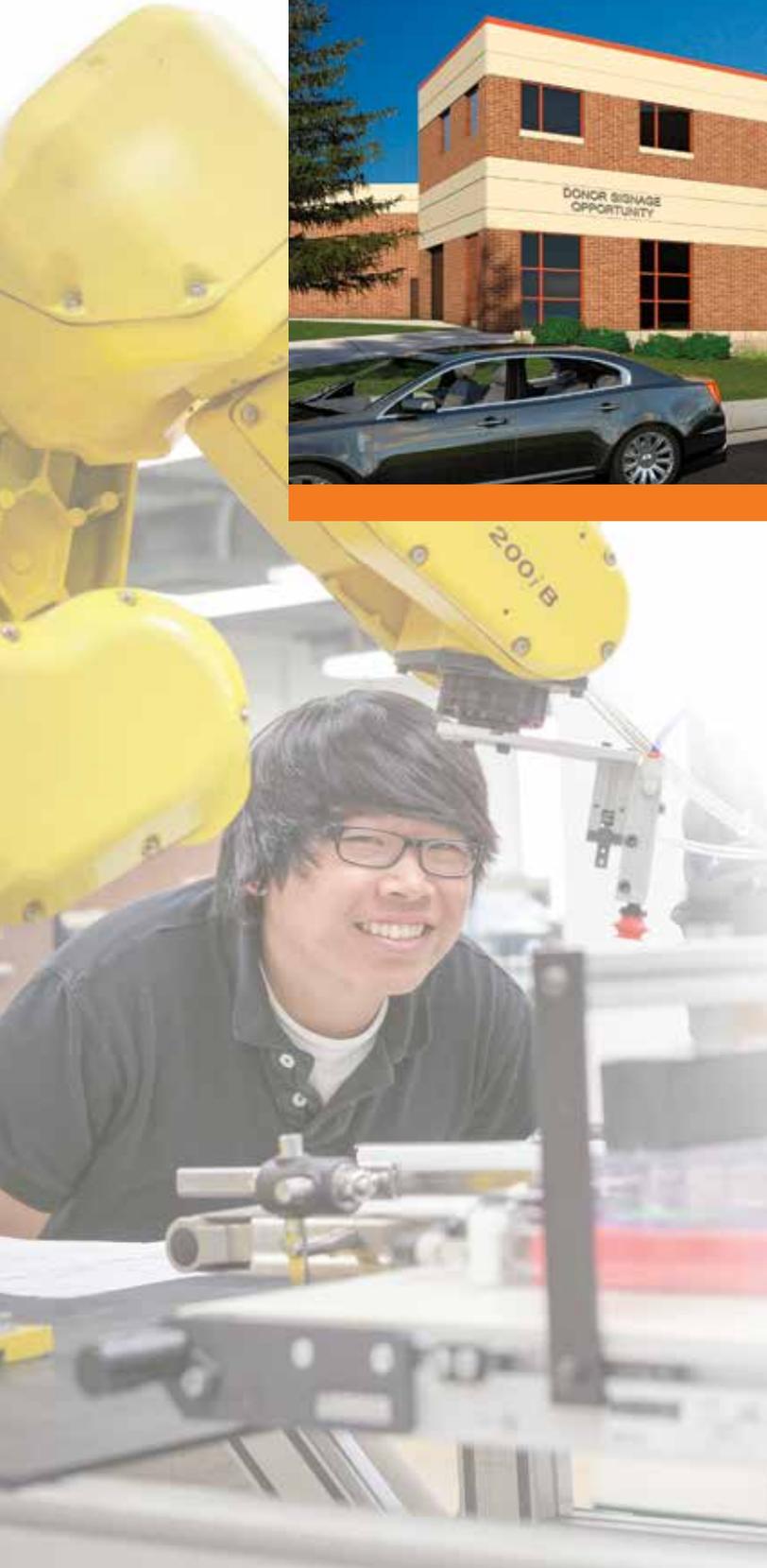


Shaping the future of manufacturing



INTEGRATED
Manufacturing
CENTER



WAUKESHA
COUNTY TECHNICAL
COLLEGE

SCHOOL OF
Applied Technologies

Manufacturers struggle to fill critical positions

Manufacturers are in need of skilled production personnel and supporting team members to maintain high production and quality levels, according to the National Manufacturing Institute. The U.S. Department of Labor (DOL) considers advanced manufacturing to be a high-growth industry, and additional education is needed to preserve the country's preeminence in this area.

As noted by the DOL Employment and Training Administration's industry profile for advanced manufacturing, the manufacturing sector accounts for 14 percent of U.S. GDP and 11 percent of total U.S. employment, and manufacturing firms fund 60 percent of the \$193 billion that the U.S. private sector invests annually in research and development. (U.S. Department of Commerce)

Talent shortages are alarming:

"Sixty-seven percent of manufacturers have a moderate to severe shortage of available, qualified workers," said Craig Giffi, vice chairman and consumer and industrial products industry leader, Deloitte LLP, noting the shortage is anticipated to increase by 56 percent in the next three to five years.

These unfilled jobs are mainly in the skilled category (industrial mechanics, electronics technicians and automation technicians). Unfortunately, these jobs require the most training and are traditionally among the hardest to find existing talent to fill."

— America's Skilled Trades Dilemma: Shortages Loom As Most-In-Demand Group Of Workers Ages, [forbes.com](#)



"We receive overwhelming requests from employers who want to hire our students. Our students know there are immediate jobs waiting for them that come with good starting salaries."

— Bob Novak
WCTC Associate Dean of Manufacturing,
40 years of industrial and educational experience

INTEGRATE

INNOVATE

Integrated Manufacturing Center to raise WCTC manufacturing programs to a new level

Wisconsin has long been a manufacturing powerhouse. It is one of the state's top industries with one of the largest employment sectors. And Wisconsin's technical colleges have been the premier training source for students seeking employment in the manufacturing field – an industry that requires its workers to possess a high level of skill, precision and detail.

Waukesha County Technical College's diverse manufacturing programs rank among the strongest in the state, offering students a comprehensive, real-world education that makes them skilled and job ready. The College consistently looks at effective ways to enhance the student experience and promote learning environments that replicate those in industry.

As part of the enhanced student experience, WCTC is working to create the new Integrated Manufacturing Center (IMC). The College is committed to investing additional resources to its already superior programs to ensure more students have access to them. The Center will be connected to the Industrial Building and will be home to several programs within the School of Applied Technologies.

The proposed 24,000-square-foot IMC will:

- Attract the best and brightest students and faculty to WCTC.
- Serve as the hub of manufacturing programs on campus.
- Align all manufacturing programs to be housed in one location.
- Facilitate integrated learning for multiple disciplines and promote collaboration.
- Provide seamless learning opportunities.
- Offer students a wealth of shared resources.

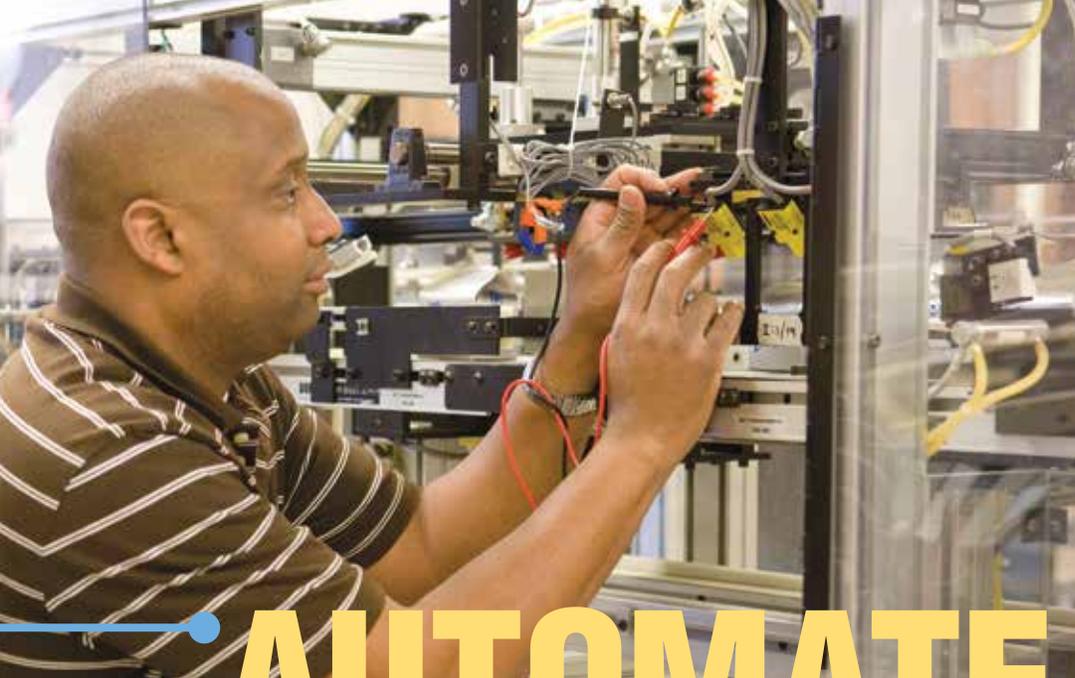
WCTC's reputation for producing confident, job-ready grads is appealing to local employers seeking hard-working and dependable employees. Having targeted and cooperative experiences through the IMC will develop students' skills to a higher level and prepare them for the types of systems they will use in the region's manufacturing companies.

(Learn more about IMC workspaces on back page.)



Partner benefits

- The Integrated Manufacturing Center's additional space allows for increased student capacity and growth in multiple program areas. For example, AST will be able to double from 150 to 300 students.
- Influenced by employers, flexible, modular workstations can be configured for individual and group work.
- The center will allow WCTC to change the way information is presented to students, including enhancements to the curriculum.



AUTOMATE

IMC's expanded workspaces promote flexible learning environments

The Integrated Manufacturing Center will allow WCTC to double the amount of lab space dedicated to the AST program; create flexible, automated work cells, which are critical to the education of advanced manufacturing automation technicians; and provide ample space for new equipment essential to creating an automated modular production system.

While WCTC's robotic and conveyor equipment is state-of-the-art, they are stand-alone systems. The spacious new center promotes a cohesive environment to support a fully integrated, modular system. Our vision for the center includes:

- The combining of mechanics, pneumatics, hydraulics, electrical engineering, PLC controls, sensors, robotics and communication interfaces.
- Modular, adaptable stations to educate advanced manufacturing technicians in a variety of automation principles including pick and place, testing and quality inspection, workpiece processing and sorting, robotic assembly, and workpiece storage and retrieval.
- The ability to reconfigure modules to coordinate learning for welding, machining and other manufacturing processes.

"Because of the training at WCTC, coupled with the internship that I earned through the program, I have gained the knowledge and experience necessary for a high-paying and professionally rewarding career in the fast-growing industrial automation industry."

– Timothy Haag, WCTC graduate

The new Integrated Manufacturing Center will include:

- Automation Systems Technology laboratory (2)
- Integrated Manufacturing and Engineering laboratory
- Industrial Maintenance Technician laboratory
- Electronics laboratory (2)
- Electronics fabrication laboratory
- Engineering lecture hall
- AST classroom
- Engineering classrooms (2)
- IMC technology lab
- Conference rooms (2)



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For more information on the proposed Integrated Manufacturing Center, contact Michael Shiels, dean of the School of Applied Technologies, at 262.691.7823 or mshiels@wctc.edu.