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# MCCCD uses VR to recruit and develop Arizona's manufacturing workforce



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By Maricopa Community Colleges  
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The Maricopa County Community College District (MCCCD) is pioneering virtual reality (VR) to promote entry-level manufacturing career paths across the Valley. In an

innovative partnership with the [Advanced Manufacturing Institute](#) (AzAMI) at Mesa Community College, [Baltu Technologies](#), and [Chicanos Por La Causa](#) (CPLC), MCCCD is recruiting the next generation of the high-technology manufacturing workforce.

The U.S. is experiencing a boom in the semiconductor industry with the bipartisan passage of the [Chips and Science Act](#) in August 2022. Billions of dollars have jump-started the nation's semiconductor industry, strengthening our economy, supply chains and training programs. Arizona is on track to become a national leader in the microchip manufacturing industry and remains a hub for global semiconductor corporations as they locate and invest in the state's economy. As one of Arizona's largest pipelines for workforce development, MCCCD is poised to train 4,000-6,000 semiconductor technicians in the next few years to fill the growing demand for a skilled entry-level workforce.

“Maricopa Community Colleges are excited to use VR to demystify antiquated perceptions of manufacturing jobs and showcase advanced manufacturing courses and specialized training that lead to certifications and degrees, as well as career pathways for the next generation of high-wage earners,” said MCCCD Chancellor Steven R. Gonzales, Ed.D.

Since access to fab clean rooms is restricted, VR provides a realistic experience for prospective students to step into the space virtually to see the job roles in action. The interactive virtual reality experience is a summarized version of performing maintenance on a complex semiconductor tool. It takes only three minutes to complete and includes five steps from start to finish. Through the hands-on gamified 3D experience, students gain valuable insight into what it takes to work in modern manufacturing facilities and can explore potential career paths.

“The machines and equipment used in semiconductor manufacturing are worth millions of dollars and are not accessible to the general public. When you’re inside these factories, they look as though they’re from the future. Many aren’t aware that they have the opportunity for a successful and lucrative career working inside these factories, even with limited or formal education. Through this immersive cutting-edge VR technology, we provide a taste to prospective students of what working in a semiconductor fab would be like,” said Peter Costa, cofounder and CEO of Baltu Technologies.

### Virtual Reality Takes Learning to a New Level



A grant awarded by CPLC assisted MCCCD in acquiring 30 VR headsets that are used for recruitment into the [Semiconductor Technician Quick Start](#), available at three of 10 Maricopa Community Colleges, [Chandler-Gilbert Community College](#), [Estrella Mountain Community College](#) and [Mesa Community College](#); and the [Aerospace Cable Harness Wiring Boot Camp](#), available at Mesa Community College.

“We are grateful to CPLC for providing the grant that assisted in kick-starting this project. It's these types of resources that allow us to partner with companies like Baltu Technologies for the content development of the software. At the end of the day, that spark is the magic that makes people pivot and decide to take the next step,” said Leah Palmer, executive director of the AzAMI.

Cesar Becerra, Ed.D., a student services supervisor at Mesa Community College, uses the headsets to recruit students interested in careers in the advanced manufacturing field. Taking the technology to high school career expos throughout Maricopa County, the VR demonstration provides a realistic, interactive experience for students to gain insight into the industry. “During the spring semester, the VR headsets were used by more than 500 students in the greater Phoenix metropolitan area with nothing but rave reviews about the engaging and interactive experience. With VR, the possibilities are endless, and the best is yet to come,” said Becerra.

Through innovative course offerings and regional partnerships, MCCCD harnesses cutting-edge technology to connect Arizona's employers with a highly qualified workforce that alleviates labor shortages and supply chain disruptions. The Aerospace Cable Harness Wiring Boot Camp and Semiconductor Technician Quick Start are accelerated and efficient routes to gain the expertise and skills needed to enter full-time, benefited, in-demand careers in less than two weeks.

*Learn more about Maricopa Community Colleges at [www.maricopa.edu](http://www.maricopa.edu).*

*The Maricopa County Community College District includes 10 individually-accredited colleges - Chandler-Gilbert, Estrella Mountain, GateWay, Glendale, Mesa, Paradise Valley, Phoenix, Rio Salado, Scottsdale, and South Mountain - and the Maricopa*

*Corporate College, serving approximately 140,000 students with bachelor's degrees, two-year degrees, certificates and university transfer programs.*