

American Universities Cultivate the “Next Generation” of Tech Professionals



A roundup of some of the new initiatives that universities are introducing to help boost the nation’s technical workforce.

Technology is being woven into almost nearly every industry sector. From data analysis to automation, basic electronics knowledge has become a competitive advantage across various job markets. Even non-tech job functions often require expertise with digital tools, hardware and software.

The STEM sector (science, technology, engineering and math) is in particularly great need of recruits who are ready to start new careers in the field. Knowing this, a number of different American universities are rolling out new programs centered on training the “next generation” of tech-minded professionals.

In some cases, those programs involve strategic partnerships with organizations that are operating in the electronics sector. This month, for example, [Utah State University announced a new partnership](#) with Intermountain Electronics (IE). Together, they’ll provide paid internship opportunities for students interested in the electrical and welding fields. The internship program is for recent high school graduates and no prior experience is required to be eligible. The 90-day internship is designed for recent high school graduates, and the program is intended to attract applicants from the five counties surrounding the university.

“This pre-apprenticeship program is different because we’ve built it with our students in mind,” said Doug Miller, USU Eastern’s chief campus administrator. “We have built it in partnership with the organization that it is going to serve. If

you choose to pursue this opportunity, you get the full gamut of experience. You get a full campus experience, and you get a great job with one of the best employers that you can find within the state.”

Getting them Ready

Binghamton University in New York is also doing its part to help students prepare for successful careers in the electronics industry. The university will soon [receive a \\$1 million grant](#) from the state to develop research and careers in the electronics industry.

The grant will allow the university to purchase additional packaging equipment for the Nanofabrication Laboratory (NLAB), a cleanroom facility for nano-scale research. The equipment will be used for research and to prepare undergraduate and graduate students for careers in the semiconductor packaging industry.

The grant was awarded as a part of the CHIPS and Science Act, a 2022 bipartisan bill spearheaded by Senator Chuck Schumer that allocated \$280 billion for American industry—focusing particularly on semiconductor manufacturing. The grant will provide the NLAB with equipment to manufacture and test semiconductors, creating training opportunities for students.

About 100 people will receive job training from NLAB. Approximately 20 faculty and 60 graduate students will also benefit from the grant, as the additional equipment will assist with research projects supported by the facility.

Teamwork Makes the Dream Work

[The University of Texas at Austin](#) just announced a new partnership with Austin Community College District and Texas Institute for Electronics to create a new semiconductor training center. Under the partnership, UT, ACC and TIE will:

- Develop a joint Semiconductor Training Center (STC), allowing students at UT, ACC and across the nation to receive hands-on technical training combined with academic theory. It also will host programs designed to transition current workforce talent into the semiconductor industry and advance the careers of incumbent workers.
- Develop Semiconductor Curriculum & Credentialing. Leveraging faculty members from both institutions along with industry experts, this initiative will build stackable skill-based microcredentials and related education activities, with plans to develop K-12 partnerships.

“The joint initiative will help build the pipeline of skilled workers at all levels that are necessary to support an estimated 115,000 new semiconductor jobs expected to be added to the U.S. economy by 2030,” UT Austin said in the press release.

The university also just introduced [a new master’s degree program](#) that it says will “help fill the demand for semiconductor scientists and engineers and give students a chance to lead the next wave of innovation in the booming semiconductor industry.”