

TCAT-Newbern Attributes Success to ‘Whole Student’ Approach With Help of Tooling U-SME Online Training



TCAT-Newbern boasts an 84 percent placement rate.

With 79 percent graduation and 84 percent placement rates, Tennessee College of Applied Technology (TCAT)-Newbern attributes its success to a synergetic relationship between the school, its students, the local manufacturing community and partners such as Tooling U-SME, a leader in training and development.

“We call it working on the whole student,” said Donna Hastings, director at TCAT-Newbern. “We are listening to manufacturers in Northwest Tennessee and working to meet the needs of our students in new ways to prepare them for the workplace by teaching them technical skills and developing a strong work ethic.”

Components of the TCAT-Newbern approach include providing up-to-date programs for sought-after skills in a structured learning environment, integrating flexible Tooling U-SME online training to meet the needs of students and instructors alike, and aligning students with industry through Dual Enrollment and Co-Op Programs.

The approach is getting noticed. Recently, U.S. Secretary of Labor Thomas Perez visited Newbern’s sister campus in Memphis to learn more about the successful TCAT model.

Developing the Whole Student

Structure is the key to developing the ‘whole student’ according to Hastings. “One of the reasons the program works so well is because of the structure of our programs, with our students working real clock hours,” Hastings said. “They clock in and are required to do 2,160 hours of training, depending on their program of study. Both students and employers like it as this experience prepares them for the real world.”

TCAT-Newbern is part of the Tennessee Board of Regents (TBR) system, which consists of six universities, 13 community colleges and 27 colleges of applied technology. To stay connected to industry needs, a six member advisory council, made up of manufacturers, industry leaders and employers, serves as a sounding board to develop curriculum to meet workforce needs for each of the TCAT-Newbern programs.

For instance, one of TCAT-Newbern’s most recent course additions, requested by the council, is a new full-time plastic injection molding/robotics program. Students graduating the program will help fill a void of qualified workers in the field.

Tooling U-SME Industry-Driven Content

In 2009, the school began offering online training for its Machining classes through Tooling U-SME, and has steadily been adding it to other programs. Today, Tooling U-SME helps graduate TCAT-Newbern students in Machining, Welding, Industrial Maintenance and the new Injection Molding/Robotics program.

“Students learn differently – some are visual, some are auditory and some learn strictly from reading – Tooling U is great for all kinds of learners,” said Hastings.

Tooling U-SME’s industry-driven online content was created by a dedicated content development team with leading manufacturing experts and is used extensively by Fortune 500® manufacturers. Its online content maps to state, system or program level, and to national credentials including the NAM Skills Certification System, covering certifications such as NIMS, AWS, SME and MSSC.



TCAT-Newbern started offering online training for its Machining classes through Tooling U-SME in 2009.

“My students can access Tooling U-SME 24/7, either from a home computer or in class,” said Craig Creswell, Machine Tool Technology Instructor and one of the first to use Tooling U-SME. “I started teaching with textbooks but made the switch about five years ago and now I wouldn’t trade it. Tooling U was the only online program that let me teach in my own style.”

Creswell said Tooling U-SME is great for instructors because it optimizes teaching time, offering instant feedback and automated grading and homework assignments. Testing and lab features also give teachers insight into their students by allowing them to monitor time in classes.

Tooling U’s audio and interactive piece with video make the material very accessible for students, according to Creswell.

In 2012, TCAT-Newbern was awarded a Tooling U-SME Platinum Education Center (TUPEC) designation as an exemplary educational facility that is developing an outstanding manufacturing learning culture.

Dual Enrollment, Co-Op Programs Aligned to Industry

While the average student age at TCAT-Newbern is 28, the school has also tapped the potential of an increasing number of high school age students by participating in Tennessee’s dual enrollment program, attracting high school juniors and seniors who want to begin working toward a college degree, taking free courses, while still pursuing a high school diploma.

Having benefitted from the ‘whole student’ approach, the TCAT-Newbern student base is then well-aligned to enter the school’s Co-op Program and the skilled employment for which they’ve been trained.

“Many employers are hesitant to hire someone who is completely inexperienced even with the required training,” said Creswell. “The Co-op Program offers employers the chance to see how a worker performs without the obligation to hire them. For the student it’s a chance to gain experience and earn some money and of course it can lead to a full-time job. It’s a win-win and that’s our goal.”