

Paving the Way to Manufacturing Careers

Toby Craver's students are gaining firsthand knowledge of U.S. manufacturing jobs. He is an Integrated Production Technologies teacher at **Fountain Lake Charter High School** in **Hot Springs, Arkansas**. This Advanced Career curriculum has greatly benefited Craver's students. "My students are learning how to work in teams. They are engaged in the projects because they are hands-on, and they are beginning to see possible postsecondary options after high school."

Ironically, before starting the course, Craver did not believe high school students could manage the challenging assignments that AC requires. "I thought the assignments were too robust, students would get lost in the mix and never get to what they were trying to create. In retrospect, I underestimated what these high school students could do when given meaningful assignments."

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Craver notes that the assignments and projects associated with the AC curriculum have been instrumental not only in increasing engagement, but also in helping students make connections between learned concepts and real-world skills. "The concepts they are learning in their academic classes are being applied to our projects. For the first time in their lives they are applying what they are learning in their core academic classes in real-world, applicable scenarios. **It is the best curriculum I've ever taught.**"

Students Shine

The growth in Craver's students has been noticeable. "Other teachers have said that these students have come out of the 'blind spot' of the school and are on a different level. **Expectations are higher, and students are thriving. They have become more interested in school.** I nurture that.

"My students go on tours and we have guest speakers in our classroom. They learn how the world of manufacturing is changing and see those changes on the front end."

The motto in Craver’s classroom is: “Learning to do, doing to learn, learning to live and living to serve.” That motto embodies his students’ approach to the work. Instead of passively reading technical materials, Craver’s students are learning how to apply learned concepts to solve real-world manufacturing problems.

He has gone beyond merely exposing his students to manufacturing materials. He has invited local business leaders into his classroom to lend their knowledge and expertise in preparing his students for the workforce. “Business leaders are blown away by what we are teaching at the high school level, so much so that they express an interest in hiring my students.” Some said that the 11th-grade projects parallel what they did as juniors in college.

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Presenting to Authentic Audiences

Craver has learned that challenging students with good learning assignments and projects is essential to building engagement and creating opportunities for deeper learning. “A highlight for me is when students present to an authentic audience — industry leaders, other teachers, college professors. The audience is impressed by the material and the technical information the students are presenting.” The professors, he said, are in awe that **high school students are giving better presentations than their college students.**

Bright Futures

Craver has capitalized on the feedback he’s received by creating partnerships with local businesses. He feels it’s unfortunate that many students must wait until their third or fourth year of college to be exposed to hands-on learning experiences such as they experience in their AC course. Since implementing his course, Craver finds more of his students are enrolling in two- and four-year colleges, and some are going to work in manufacturing. He believes the business partnerships will only do more to solidify a place for his students in the community.

Toby Craver