

iTECH Academy Offers Jumpstart on Engineering Technology Degrees to Area High School Students

It's a Thursday in Rutherford County. A high school student finishes her lunch and boards a school bus to the local community college. Her first college class of the day is a college success course. Today the students are working with their instructor to map out an individual semester-by-semester academic plan. The plan takes into consideration her long-term career goals, and addresses any individual barriers to college success, such as her work schedule and transportation needs.

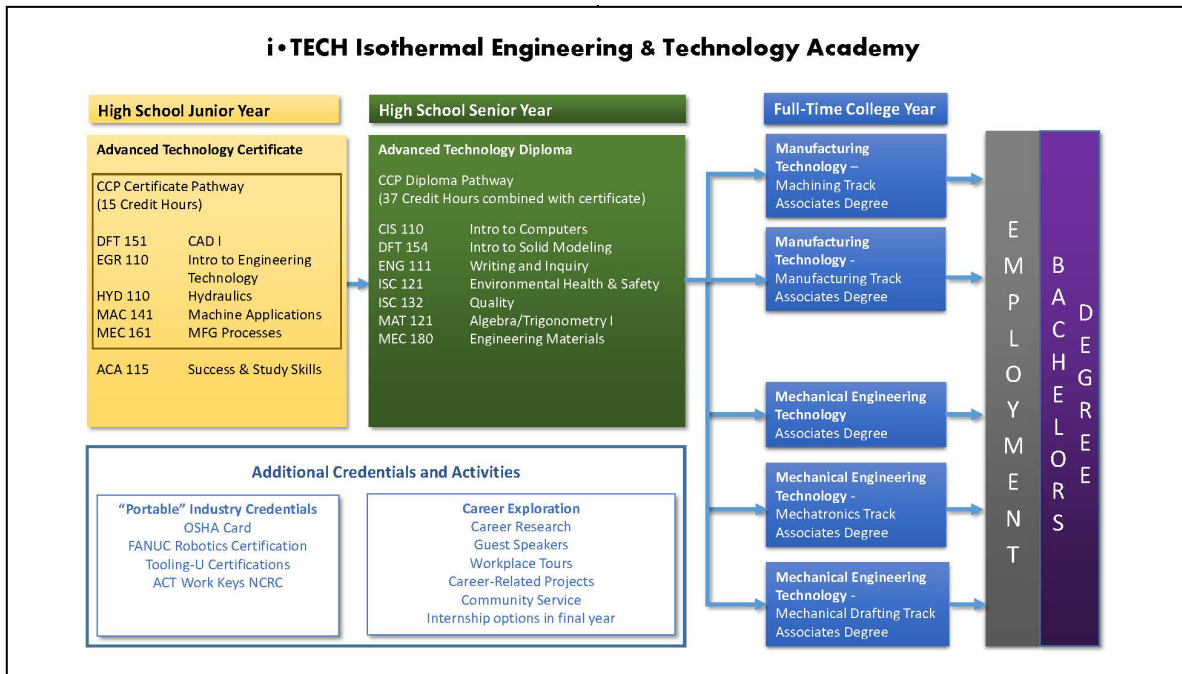
In her next class, Intro to Engineering Technology, she works with her team on an eight-foot long trebuchet. Today they are installing steel reinforcing plates that they designed in their Computer-Aided Drafting class and fabricated in the college's machine shop using a CNC water-jet cutter. After class she boards a bus to return to her high school for dismissal. On the ride back to school she is talking with her classmates about the field trip to a local factory that their Manufacturing Processes class is taking tomorrow, and also brainstorming about the cardboard boat they are building to enter in the college's upcoming Fall Festival Boat Race.

Isothermal Community College in Spindale is using an innovative new program to engage high school students in technical curricula, foster early college completion, and position the college as a leader in preparing the next generation workforce for 21st century jobs. The program is Isothermal's i-TECH Academy—a dual enrollment program where high school juniors and seniors can earn college credits while preparing for rewarding technical careers. i-TECH is different from traditional dual enrollment courses in that students in the program have a true college experience with an orientation, participation in campus events, and

direct access to college resources. i-TECH students spend their mornings at their high school, taking high school courses, and spend their afternoons taking college courses, tuition-free, at the college. Transportation to and from Isothermal is provided for students at the three county high schools.



The i-TECH Academy enables students to begin their college and professional lives sooner. The i-TECH pathway incorporates stackable credentials and industry-valued third-party credentials. Students can earn a Mechanical Engineering Technology Certificate in their junior year and then take courses in their senior year to complete a Mechanical Engineering Technology Diploma from Isothermal Community College. After graduating from high school students can then complete an Associate Degree in Mechanical Engineering Technology



or Manufacturing Technology at Isothermal in just one year at little or no cost to their families. Students may then choose to continue their studies by pursuing a Bachelor's Degree in Engineering Technology (with seamless transfer to Western Carolina University), either full-time or part-time, while working in their technical career. Academy graduates will have the skills and knowledge they need to be successful at the university level or in competitive jobs in advanced manufacturing technology.

Every position—from Mechatronics Technician and Computer Aided Designer to CNC Machinist and Quality Engineer—requires an advanced technology professional who can perform technical, complex tasks, work within a team, and solve problems. Whether troubleshooting factory automation systems or analyzing defects in products and driving quality improvements for global customers, i-TECH graduates will be helping our world work better. In addition to bringing together the best elements of high school and college, learning about regional industries and exploring technical careers is a major focus of the i-TECH Academy. i-TECH is dispelling the perception that manufacturing careers are dirty, dull and dangerous, and emphasizing the value of education by allowing students to see first-hand modern automated manufacturing and learn what it takes

to qualify for highly skilled, rewarding technical jobs. As an integral part of i-TECH students participate in industry tours, interact with guest lecturers and mentors from regional industry and work on "hands-on" projects modeled around the aerospace and automotive advanced manufacturing industries. i-TECH incorporates a high degree of project-based learning to make courses engaging and relevant, and to foster teamwork, critical thinking and retention. i-TECH projects apply a wide range of tools and technology helping students to be better prepared for real-world jobs while also exposing them to a variety of other technical programs offered at the college. Following high school, students in their final full-time college year can also apply to participate in work-based learning programs with i-TECH industry partners. The i-TECH Academy is a "win-win-win" for students, industry and the community.

The i-TECH Academy was developed in partnership with Rutherford County Schools and regional industry, and initially funded with a grant from the Appalachian Regional Commission.

To learn more, download the iTECH [flyer](#) or iTECH Advantage [graphic](#), or contact [Joe Looney](#), Dean of Applied Sciences and Engineering Technology, Isothermal Community College.