

Area educators training for engineering challenge

By **SCOTT WHIPPLE**
HERALD STAFF

FARMINGTON — Donna Didsbury wanted to instill teamwork and leadership in her students. So the Brookfield High School math teacher enrolled in "Engineering Challenge for the 21st Century," a week-long program at Tunxis Community College.

"I want my students to learn perseverance," she said. "A lot of them lose interest in projects and give up too easily."

Didsbury is the coach of her school's robotics team. Robotics is the science and technology of robots, their design, manufacture and application. "If what they build doesn't work, I want them to take the project apart and start over," she said. Perseverance is something they'll need in the work force.

John Birch, founder and presi-

dent of New Britain-based The Birch Group LLC, is leading the workshop at Tunxis Community College. "The college is graciously letting us use their facilities," he said. He counts "perseverance" as one of several traits future Generation X workers will need.

Birch and his team of consultants are responding to a growing concern among employers that a lack of technical and academic competence was preventing young people from succeeding in the workplace. To compete in a global economy, manufacturers need a highly trained, self-motivated work force, strong in leadership, team-building and communication skills.

Eighteen dedicated teachers are spending a week of their summer vacation learning how to educate their students in these skills.

The hope is that their students, mostly at technical, magnet and inner-city high schools, will become qualified and productive

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Brookfield High School
math teacher



Michael Riley of Columbus, Ind., left, and Donna Didsbury of Brookfield High School work together on engineering a stethoscope for premature infants during The Birch Group Engineering Challenge for the 21st Century workshop held at Tunxis Community College.

engineers and technologists. Some will discover that manufacturing is no longer dirty, repetitive work; and others will believe in themselves and want to apply to college.

Designed to help educators interest and inspire their students to select careers in science, technology, engineering and mathematics. **See TEACHERS, Page 8**

Birch Instructors

"The Engineering Challenge for the 21st Century" program helps educators prepare their students to acquire employable skills. The Birch Group is directing this week's train-the-trainer program at Tunxis Community College. Instructors include:

- John Birch, a consultant specializing in strategic planning and leadership development.

- Ron Adrezin, professor of mechanical engineering, Coast Guard Academy and executive director of Life Support and Sustainable Living

- Andrew Angle, physics instructor, Watkinson School

- Beth Richards, department chair of technical writing, University of Hartford

- Karen Wosczyzna-Birch, executive director of the CT College of Technology Center for Next Generation Manufacturing

Program ushers kids into state schools, workforce

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matics, the program is funded by the National Science Foundation and Connecticut Business & Industry Association, and sponsored by the Connecticut College of Technology and its Regional Center for Next Generation Manufacturing. The CCT facilitates the transfer of credits between the state's community colleges and most four-year institutions.

"The college has created a seamless pathway for two-year students to go on to a four-year university with all their credits being accepted," Birch explained.

This week, Didsbury and her fellow teachers are designing an electronic stethoscope to improve listening to premature babies with abnormal bowel sounds. In addition to project-based learning, the program stresses teamwork, technical communication, organizational and interpersonal skills, including understanding behavior diversity using DISC profiles, and personal accountability. DISC stands for dominance, influence, steadiness, conscientiousness and refers to a group of psychological inventories that examine person-

alities and behaviors.

Earlier this year, 22 Prince Technical High School, Hartford, students took part in a pre-engineering program held at Manchester Community College. The program took place during spring vacation, when students could have been relaxing at home. Instead, they immersed themselves in project-based learning investigating fiber optics, lasers and other concepts and devices, reading wiring diagrams and producing concise, focused lab reports and field reports.

At the end of the program, the instructor asked the class how many planned to continue studying, living and working in Connecticut. Most raised their hands.

"There are good jobs here," said Brittney Clarke, a Prince Tech student. "Before, I wasn't sure what I wanted to do. Now I know. I'm going to be an engineer."

To Birch, it's music to his ears.

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