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TTU Chemical Engineering Students Test Entrepreneurial Talents

There are other ways to cool a can of soda than with a refrigerator or ice in a glass. Freshmen chemical < (<http://www.tntech.edu/files/engineering/CokeCans.jpg>)engineering students set out to find a few of them.

> They developed baths of ice and salt, systems involving copper tubing surrounded by ice and ice cream makers. One group used compressed air.

After their designs were built and tested, the students in the chemical engineering department's university experience course tried to sell them to a couple of Cookeville's "serial entrepreneurs."



"The campus is going to try to institute minors that have entrepreneurship in them; this is our pilot run," said Holly Stretz, associate professor of chemical engineering and course instructor. "A renaissance engineer isn't just supposed to get a job and do well. They're supposed to create jobs. We have to get our students thinking about that early."

A renaissance engineer, according to the TTU College of Engineering's strategic plan, is one who revolutionizes engineering to solve society's problems.

Stretz had the students work on cooling a soda can down because of a call for proposals from the U.S. Navy several years ago. Because of energy and maintenance requirements, the navy decided not to have soda machines on aircraft carriers.

Entrepreneurs from The Biz Foundry and others in the area came to Stretz's class to discuss what it takes to be an entrepreneur and returned to it again to judge the student designs. They circulated the room, watching demonstrations, listening to sales pitches and investing fake money. The team with the most money in their beaker at the end of the class period won.

The winning team designed the Cool-A-Coke 3000 using an ice cream maker. Investors gave them \$41,000 in fake money to expand their design so it could fit more than two soda cans and modify the design to make it solar powered.

"We liked the idea of being simple. Anyone with an ice cream maker can do this," said chemical engineering student Zac Gullede, of Nashville. "If you're formatting a business, you can take something that already exists and modify it to work for something else."

Prizes were also given for the technical aspect and for most environmentally friendly design.

"This is trying it out to see what the freshmen think because if we're going to have a new minor, we need to see if they like it," Stretz said. "It seems like they liked it. You want them to go beyond doing it for a grade but doing it because they like it."

-- Lori Shull

Last edited 2014.10.15 by Davis, Cynthia.