

Area Students Showcase Projects at Early College High School Expo Program Gives Grads a Head-Start

Photos by MarkBolles.com

by **Stephanie Hale-Lopez**
Saratoga TODAY

MALTA — Hundreds of students from area schools enrolled in the Clean Technologies and Sustainable Industries Early College High School Program, along with faculty, staff and mentors, packed Hudson Valley Community College's (HVCC) TEC-SMART campus in Malta Thursday, Jan. 14 for the program's winter expo.

Featuring dozens of projects, the expo highlighted the work of students in grades 9, 11 and 12 who are already well on their way to careers in one of New York's most emerging industries.

The ECHS program allows high school students to earn college credits in a college setting, with the coursework designed to better prepare students for careers in STEM-related fields.

"The idea is to help smooth that transition from high school to college," said Diane Irwin, ECHS Program Director. "They're taking classes in a supportive environment, they have high school faculty and a school counselor...and the idea is also put that type of support in place to help them obtain college credits while they're still in high school so when they graduate, they know what to expect."

While not every student involved in ECHS will go on to be engineers or nanoscientists, organizers say the program broadens the horizons of students and prepares them for the next chapter of their lives once they graduate. It also allows the students to network with the more than 30 businesses that sponsor the program.

The expo featured demonstrations from the different grade levels related to their given topics. Freshmen created a miniature eco-cars ran on chemical batteries; juniors presented their food and agriculture innovation exhibits; and seniors produced videos on micro-electro-mechanical systems or MEMS devices.

"We're a problem-based, trans-disciplinary curriculum and students are trying to solve real-world problems," said Irwin. "Our ninth graders have been working on designing battery-operated cars with chemical batteries...the juniors were asked to identify problems and concerns related to food supply and the seniors researched how MEMS devices could potentially be used in future products. It really is about addressing the authentic issues that society, as a whole, is facing."

The ECHS program started four years ago with a focus on high school juniors and seniors, but began incorporating freshman for the 2014-2015 school year and Saratoga Springs High School student, Amanda Davis, is one of those inaugural freshmen. For the expo, she and her team raced their salt-water and magnesium-operated car against teams from other schools. She says she'll continue to participate in the program throughout her high school career.

"It's definitely beneficial," said Davis. "It's getting us ready for some of the key skills we need that we don't really get in the classroom."

Next year, the group of freshman currently enrolled in ECHS will create their own sophomore category and new freshman will join – making ECHS fully operational in grades 9-12.

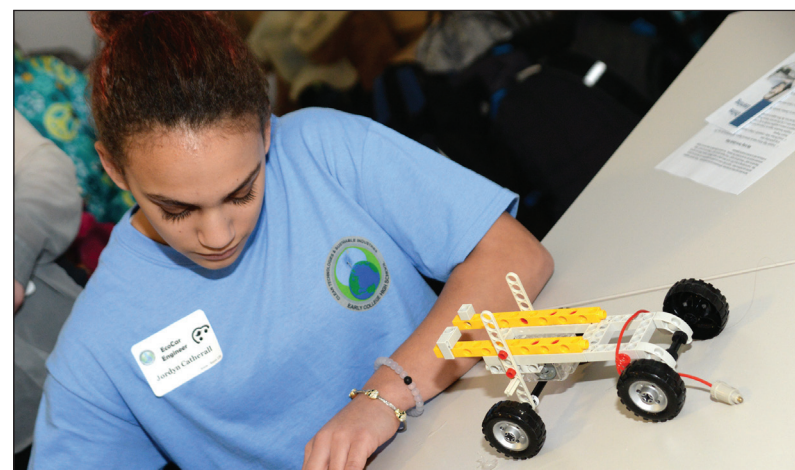


Jamison Friauf of Ballston Spa High School.



Renee Banagan of Saratoga Springs High School.

"We started our first cohort in the fall of 2010 with 25 students and we now have over 200 students enrolled in the program," said Irwin. "It's very exciting. You can see the self-confidence and the growth... you really do see a difference from when the students started the program to when they're graduating."



Jordyn Catherall of Ballston Spa makes adjustments on her team's car.

Clean Technologies & Sustainable Industries Early College High School Winter 2015 Expo.

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