



A Different Kind of Ambassador

CEPS students bring STEM to life in Granite State schools

Friday, October 28, 2016



THE 2016-2017 CEPS STEM BASSADORS (PHOTO: BROOKS PAYETTE)

Kaelin Chancey '17 knew early on that she wanted to be an engineer.

Chancey loved math and science and solving problems, and she wanted to follow in the footsteps of her father, who had his own



KAELIN CHANCEY '17 OVERSEES A STEM ACTIVITY. (PHOTO: BROOKS

SUBSCRIBE TO THE UNH TODAY NEWSLETTER

SUBSCRIBE TO UNH TODAY RSS

RELATED LINKS

[A Summer at Apple](#)

[A Festival of STEM](#)

[Sowing Seeds of STEM Success](#)

[STEM Sell](#)

PAYETTE)

successful career as an engineer. But according to Chancey, now a senior mechanical engineering major at UNH, if it wasn't for her father and her early exposure to the STEM — science, technology, engineering and math — fields, she might have taken an entirely different path.

“I knew from a young age what an engineer was and that it was a potential career path for me. But a lot of my friends didn't realize that,” the Lancaster, New Hampshire, native says. “Opening that door to kids is very important, and I see it as an obligation of mine.”

That's why Chancey joined the [College of Engineering and Physical Science \(CEPS\) STEMbassadors program](#) this past spring. The program brings more than 50 student volunteers to K-12 schools throughout New Hampshire. Chancey and her fellow STEMbassadors work with students on hands-on STEM activities, which could include anything from building circuits using pizza boxes or designing theme park rides to creating miniature catapults that fling marshmallows or figuring out how to clean up a simulated oil spill.

The STEMbassadors kicked off the new academic year in September with a three-day trip to New Hampshire's North Country. Almost 700 students from five schools in Berlin, Gorham, Groveton, Lancaster and Conway took part in a [variety of activities](#), all of which culminated at a regional STEM Festival on Saturday, Sept. 24.

One of the participating schools was Lancaster Elementary School, where Chancey was a student for eight years. Going back to teach students about STEM was a special opportunity, Chancey says.

“I knew some of the students



**STUDENTS WORK ON A
STEMBASSADORS ACTIVITY.
(PHOTO: EDEN SUOTH '18)**

and their families, so it made it a much more personal experience,” she says.

As schools continue to emphasize STEM to help prepare students for higher education and the workforce, that kind of outreach is more important

than ever.

CEPS launched STEMbassadors in 2015 with the goal of providing “rich STEM educational experiences” to K-12 students across the state, according to Brooks Payette '12, communications and outreach manager for CEPS.

During a typical visit, the STEMbassadors lead an hour-long interactive activity. After a short introduction, students set off to complete the day’s challenge — a competition to see which team can build the strongest truss bridge out of a limited supply of paper and tape, for example, or constructing model wind turbines and measuring how much energy they generate.

“The goal is to provide inspiration, positive role models and hands-on STEM experiences,” Payette says. “Everywhere we go, we get kids who come back again to participate because they’re excited about us being there.”

According to Payette, STEMbassadors fill an important educational niche. For schools with limited resources, a STEMbassadors visit can bolster efforts to add more STEM activities to the curriculum. The group also provides students and teachers with ideas and inspiration for starting up their own STEM initiatives.

“It gives students a sense of what engineering is, whether it’s civil, mechanical or chemical, and how important their math and science classes are,” Payette says. Through the activities, students “can see how this applies to things in their lives — and potential careers.”

That’s vital for New Hampshire, where STEM-related jobs are one of the state’s top economic sectors, according to Payette. Getting young people to think about careers in the STEM fields from an early age makes it more likely those students will pursue STEM careers and find jobs in New Hampshire, rather than moving out of state.

“If we don’t turn that lightbulb on at a younger age, it’s hard for a high school senior to say, ‘I want to go to college for engineering now,’” Payette says.

Lancaster Elementary

Design, Build, Test, Repeat

Kaelin Chancey '17 long suspected she’d become an engineer — and her suspicions were confirmed when she took a course on mechanical design in robotics during her senior year of high school. “It was very introductory ... but by taking the class, it confirmed what I already knew,” she says.

For Chancey, engineering is “like building a puzzle” — it’s a field that allows you to bring together various disciplines in pursuit of solutions. That those solutions don’t always work is one of the things Chancey enjoys most. During her STEMBassadors visit to Lancaster Elementary School, she and her STEMBassadors cohorts guided students through a theme park design activity.

School (LES) principal Todd Lamarque is a member of Gov. Maggie Hassan's STEM Education Task Force. At LES, parents and students alike have responded enthusiastically to STEMBassadors, he says.

Lamarque adds one of the task force's visions. "Having elementary students work with college students and having the college students break down that information on a real level for them is really powerful," he says.

In its first year, STEMBassadors reached 5,000 students from all 10 of the state's counties. As the program continues to grow, Payette plans to build relationships with more schools and find ways for STEMBassadors to augment existing STEM curricula.

None of that would be possible, he says, without students like Chancey, who are eager to share their passion for STEM with the next generation of engineers.

For Chancey, engineering is all about solving problems, and being a volunteer STEMBassador means a new chance every week to find solutions for the field's future.

"You use materials like cups, strings, paper and tape to create a ride," she says. Ping pong balls stand in for park visitors, and the idea is to design something like the famous Tower of Terror rides — a platform on a pole that drops suddenly. It's a simple concept that proves difficult to execute.

"It gives you a really good idea of the process of engineering," Chancey says. "You're testing it immediately, and you're seeing if it failed and trying something else out. You get to try a lot of different ideas and ... you figure out you can't do it alone and have to work together."

“It’s giving students more opportunities for the future, and that’s just going to be better for engineering as a whole,” she says. “I see it as something that’s important and worthwhile to spend time doing, because you get to invest in those kids.”

Interested in becoming a STEMbassador? Apply to the UNH College of Engineering and Physical Sciences.

WRITTEN [Larry Clow '12G](#) | UNH Cooperative Extension

BY:

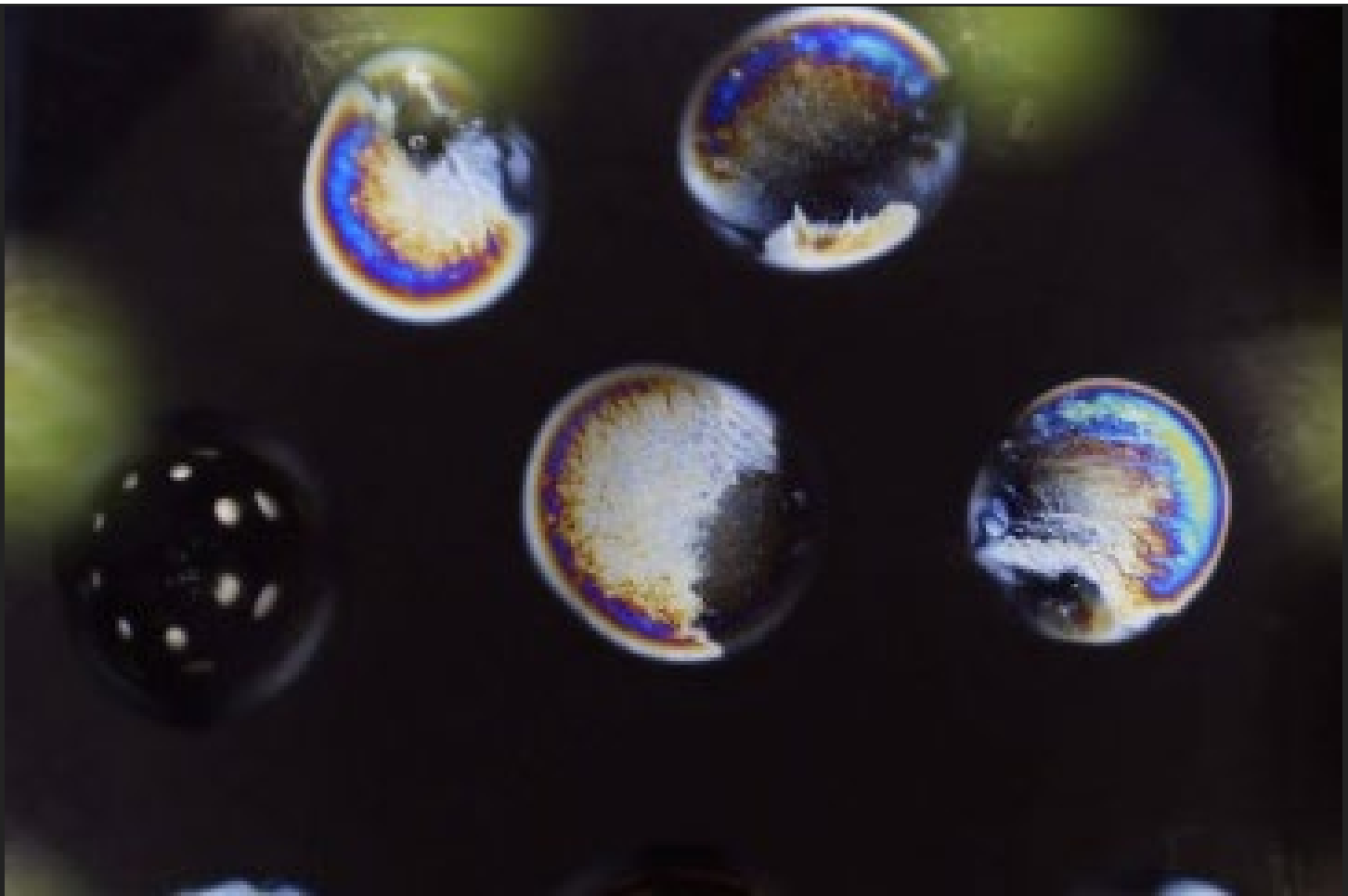
360 EXPERIENCE

RELATED ARTICLES



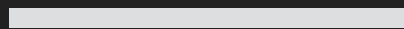
April 22, 2021 | COLLEGE OF ENGINEERING & PHYSICAL SCIENCES

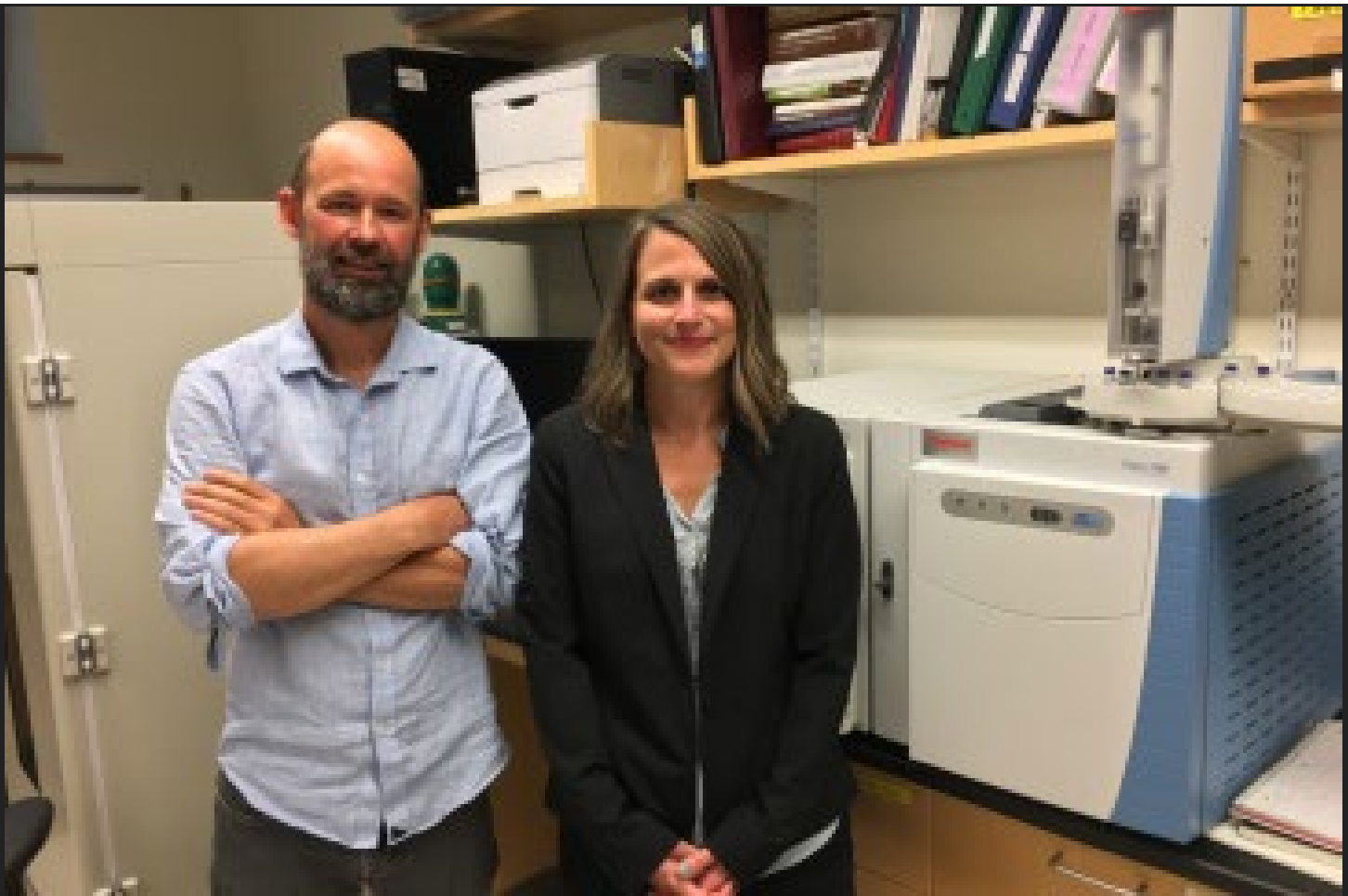
Three Students Awarded SMART Scholarship



July 15, 2021 | RESEARCH SNAPSHOTS

Research Snapshot: Nature's Antifreeze





September 17, 2021 | GRANTS AND CONTRACTS NEWS

UNH Scientists Receive \$1M to Support Critical Soil Sustainability Research



University of New Hampshire

UNH Today is produced for the UNH community and for friends of UNH.

The stories are written by the staff of **UNH Communications and Public Affairs**.

Email us: unhtoday.editor@unh.edu.



UNH Today • UNH Main Directory: 603-862-1234
Copyright © 2022 • TTY Users: 7-1-1 or 800-735-2964 (Relay NH)

[USNH Privacy Policies](#) • [USNH Terms of Use](#) • [ADA Acknowledgement](#)

[MANAGE YOUR SUBSCRIPTION](#) [CONTACT](#)
[US](#)