Engineering
ADVANTAGE

**FROM GANGS TO
AEROSPACE ENGINEERING**

**JEFFREY APARICIO'S
PATH TO GIVING BACK**

CAL POLY

A NETWORK OF SUPPORT

NORTHROP GRUMMAN PARTNERSHIP INSPIRES **DA VINCI STEM SUMMIT**

IN 2014, NORTHROP GRUMMAN, and a generous gift, brought Cal Poly and Da Vinci Science High School in El Segundo, Calif., together with a specific goal in mind — matriculate more Da Vinci students to Cal Poly. But what started as a collaboration that focused on students also turned into a network of support between STEM educators.

In June, eight Cal Poly professors representing disciplines across four of Cal Poly's six colleges provided curricular consultation, instructional methodologies and collaborative dialogue at the first-ever Da Vinci STEM Summit. It was just one example of the partnership that Northrop Grumman so generously supports.

Lauren Cooper, a tenure-track assistant professor in Mechanical Engineering, was there to help Da Vinci teachers understand what they can do in their classrooms to prepare students for college.

"I jumped at the chance to participate in the STEM Summit," Cooper said. "Prior to teaching at the university level, I spent several years doing engineering outreach in middle and high school classrooms, where I worked alongside teachers to help them integrate engineering and creative design into math and science classes."

Cooper participated in a daylong workshop on student motivation in project-based learning and design thinking, then returned the following morning to brainstorm ways to revamp existing project-based curriculum. In August she returned to deliver a design thinking and creativity in engineering workshop

ABOVE: Cal Poly Assistant Professor Lauren Cooper works with educators at the Da Vinci STEM Summit.

to the entire school. She will continue that work through the next year.

"The premise of design thinking, and why it is so successful, is that it places real, everyday people at the center of all design activities," she said. "Successful, creative and sustainable solutions to our most pressing current and future challenges will only come about if we involve the people who experience those challenges. Many big companies, like Apple, Google and Nike, have already figured this out and are applying design thinking to solve big, messy problems. My hope is that the Da Vinci teachers now have some of these same skills that they can apply in their everyday teaching." ∎