## **Early lead**

**IN FALL 2020,** Zoe Vittum of Brewer, Maine, enrolled at the University of Maine as a full-time undergraduate. And a sophomore in biomedical engineering.

Vittum's participation in UMaine's Early College program resulted in earning more than 50 credit hours by the time she graduated from Brewer High School. She focused on her general education requirements in engineering — from physics and calculus to English 101 — so she could jump right into her biomedical engineering coursework, which she describes as "more hands-on than almost every other college that offers biomedical engineering as an undergraduate degree."

She also continues her work as a student researcher at UMaine's Advanced Manufacturing Center in her long-held passion for robotics. Vittum is a member of Black Bear Robotics and the NASA Robotics Mining Challenge teams. And she is on the outreach committee of the UMaine chapter of the Society of Women Engineers.

Summer 2021, Vittum will be doing a research internship at Jackson Laboratory.

When asked to describe the UMaine student engineering experience in one word, she said: individual.

There's so much going on in the College of Engineering and students have so many experiential learning opportunities that can make their UMaine experiences different, Vittum says.

"There are so many opportunities within UMaine engineering, from research, to clubs, to courses, to minor options that no two people have taken advantage of the same ones," she says. "This allows every student to focus on what they want and make their knowledge base unique to what they want to do and who they are, which is really important when trying to stand out to future employers or schools."

Her favorite classes so far? Calculus I–III with lecturer Paul Van Steenberghe. "Having a strong understanding of math is absolutely vital in engineering and Steenberghe did an amazing job teaching us not only how to do the math, but how to use the math and how we will see it used in our futures," she says.

The academic atmosphere at UMaine is very hands-on and real-world preparation-based, says Vittum. It's clear that the UMaine undergraduate engineering curricula and professors have this in mind when designing and structuring classes. It also is evident in the number of opportunities for undergraduate research on campus.

"UMaine's academic atmosphere and the opportunities for undergraduate research are some of the biggest reasons why I and many other students have chosen UMaine," Vittum says. "UMaine has given me opportunities to challenge myself academically and excel in what I enjoy learning about."

Early College opportunities while still in high school "allowed me to design that path to best fit my needs and capabilities," she says. "UMaine is giving students a way to make progress toward their future, which makes a huge difference in the lives of students like me."  $\blacklozenge$ 

Zoe Vittum. Photo by Adam Küykendall

