

Board of Education

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NEWS RELEASE

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Covina High School Students Dive into Coding, Programming in Engineering Design Pathway

COVINA, CA – Covina High School students in the Engineering Design Career Technical Education (CTE) Pathway dive headfirst into a curriculum rich with hands-on coding and programming experience, granting them vital skills to help them succeed in the industry.

The four-year pathway covers various topics, including engineering principles, robotics, computer design, 3D printing, coding, and more. The program culminates in a capstone class that challenges students with an eight-month project in which they create an invention of their own, including choosing a solvable problem, gathering data, building surveys, exploring the U.S. Patent Office, and manufacturing a working prototype to present to the class at the end of the school year.

"Students in the Engineering Pathway are participating in hands-on labs and activities at least three times a week, if not every day," Engineering Pathway teacher Andrew Frogue said. "They get to fully immerse themselves in the subject and take advantage of all the kinesthetic learning we do."

The pathway is partnered with Project Lead the Way, which provides teachers with a comprehensive, project-based curriculum that allows students to apply what they know, identify problems, find unique solutions, and lead their learning. The Engineering program empowers students to develop in-demand knowledge and skills, helping them to thrive in today's world.

"I first discovered my love for engineering in sixth grade through the Femineers program, which inspires female students to pursue STEM in their education and future career," Covina High School senior Britney Wilson said. "Since then, I've continued taking every engineering course and was excited to join the Engineering CTE pathway. I love the innovative aspect of engineering and the hands-on learning style."

Wilson plans to attend a four-year university and major in mechanical engineering to expand her options for entering the engineering industry.

The Engineering Design CTE Pathway gives students valuable skills to help them excel in their future college classes and enter the workforce in a mechanical, industrial, and electrical engineering position. It also gives them an advantage in pursuing software development or other computer science opportunities.

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"Our students have the chance to pursue so many great opportunities and career paths in our District's numerous CTE programs," Superintendent Dr. Elizabeth Eminhizer said. "We work tirelessly to ensure Covina-Valley Unified students gain unique skills and knowledge that will help them excel in whichever career field they choose."

PHOTO CAPTIONS:

CVUSD_ENGINEERING1: Covina High School senior Britney Wilson demonstrated her knowledge of designing and coding a robot during an Engineering Showcase on Nov. 8. The event brought visitors and administrators from the Los Angeles County Office of Education and local career technical education (CTE) programs to the Covina High School campus to learn from CHS students in the Engineering CTE pathway and the many benefits of the hands-on learning curriculum.

CVUSD_ENGINEERING2: Covina High School students in the Engineering CTE pathway design and code robots as one of many hands-on learning opportunities in the four-year pathway.

CVUSD_ENGINEERING3: Covina High School senior Mai-Thi Ton is part of the Engineering CTE pathway and excels in coding and programming robotics. The four-year pathway covers a variety of topics including the principles of engineering, robotics, computer design, 3D printing, coding, and much more.

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