

Scaling Career-Connected Dual Enrollment

How College and K-12 Partners Can Strengthen Pathways and Expand Opportunity

CASE STUDY ON STRATEGY 2B: CAREER-FIELD HIGH SCHOOL ACADEMIES

Exploring Careers and Expanding Opportunity at Centinela Valley Union High School District

Many urban high schools across the country are facing declining enrollment as competition with charter schools grows and more families are priced out of their communities. Centinela Valley Union High School District (CVUHSD), located just south of Los Angeles International Airport, has faced these enrollment headwinds by creating a draw for students and families: career academies with aligned dual enrollment coursework.

About a decade ago, Hawthorne High School—one of three comprehensive high schools in the district—adopted a national project-based, hands-on curriculum called Project Lead the Way within its School of Manufacturing and Engineering academy. Around the same time, the district’s local community college, El Camino College, was also facing a problem: low matriculation rates for students entering its manufacturing and engineering program after high school. When a dean at El Camino, who happened to also be a Hawthorne High School graduate, learned of the new Project Lead the Way curriculum, he saw a chance to help both the district and the college by bringing college credit courses into the high school career academies.

The pilot project to embed dual enrollment (DE) courses within the Manufacturing and Engineering academy proved successful and changed the district’s mindset about how dual enrollment could be used more broadly. What started as a way to help students *learn* about careers evolved into redesigning the high school experience to *connect* students to courses and experiences that reflected their future academic and career interests. As Hatha Parrish, director of federal and state programs, put it, “It’s not college or career, it’s college *and* career.”

FAST FACTS:

Centinela Valley Union High School District

- Enrolls 5,500 students across five high schools (three comprehensive) in Los Angeles, CA
- Half of students take dual enrollment
- Most dual enrollment is delivered through cohort programs at high schools during the school day; most courses are taught by high school teachers who are approved as adjunct faculty
- 40% of district students enroll in an academy or CTE pathway in each of grades 9–12

CVUHSD has since scaled this strategy across the district, with the Manufacturing and Engineering academy pilot recognized as the gold standard for the student experience across all 10 career academies and career and technical education (CTE) pathways in the district's three comprehensive high schools.

Expanding Career Exploration Opportunities While Keeping Postsecondary Options Open

After surveying their students, district leaders recognized that many wanted opportunities to explore broad career fields without being locked into a specific occupation. In response, CVUHSD designed academies that expose students to multiple educational and career options within a field while preserving access to university, community college, apprenticeship, and workforce pathways.

Through a process that considers input from student interest surveys, local labor market analyses, and the offerings of local colleges, CVUHSD has created opportunities for students at its three comprehensive high schools to explore a wide range of career fields through academies including Manufacturing and Engineering and Technical Arts and Design at Hawthorne High School, Biomedical Careers and Cinematic Arts at Lawndale High School, and Environmental Careers and Multimedia Careers at Leuzinger High School.

Hawthorne High School of Manufacturing and Engineering

Mission

This academy is a progressive small learning community tasked with creating the next-generation workforce. HHSME is committed to developing innovators who lead through the design and implementation of practical solutions to meet the ever-changing workforce challenges of today and beyond.

Work-Based Learning Opportunities

Job shadowing and internship opportunities allow our students an inside look at what the future might bring for their individual careers. These range from 20 hours to 200+ hours, working with industrial professionals on-site at one of our industry partners' facilities. Many of these shadowing/internships have evolved into full-time and part-time employment for our students.

Student Support

Students use the same industry-leading design principles and 3D Design Software as companies like Northrop Grumman, Boeing, and Walt Disney Imagineering. Students explore the world of architecture and product design, gain experience in aerodynamics and biomechanics, and are trained in state-of-the-art manufacturing labs.

Grade Level Course Sequence

- 9 – Introduction to Engineering Design
- 10 – Principles of Engineering (El Camino College DE course)
- 11 – Computer Integrated Manufacturing (El Camino College DE course)
- 12 – Engineering Design and Development (El Camino College DE course)

Source. Text adapted directly from https://www.hhscougars.org/apps/pages/index.jsp?uREC_ID=203298&type=d&pREC_ID=1281187

Rather than treating dual enrollment as a separate opportunity available only to motivated students, the district embedded it into academy experiences so that college coursework provided by El Camino College is a normal part of career exploration and preparation. By default, students take DE courses offered in partnership with El Camino College as part of their career academy or pathway. Academy curricula are aligned with California’s A–G requirements—a sequence of high school courses to allow students to be eligible for admission to the University of California (UC) or California State University (CSU) systems—to maintain bachelor’s pathways as an option for students. “We want all students to have options,” said Parrish, “and we think that this is the best way for them to have those postsecondary options.”

Integrating Work-Based Learning With Career and Postsecondary Exploration

In addition to embedding DE offerings into career academies and CTE pathways, CVUHSD intentionally pairs its curriculum with work-based learning (WBL) opportunities to help students explore their interests. The district benefits from a diverse local economy with strong, high-growth industries. Using a state-identified WBL continuum, high school CTE pathway specialists and academy coordinators help students navigate experiences that range from lower-intensity guest speaker visits and job shadowing to high-intensity paid internships and pre-apprenticeships.

The district places a strong emphasis on scaling real-world work experiences and prioritizes paid WBL opportunities. However, placing high schoolers in these roles can sometimes present logistical hurdles. For example, when strict citizenship and security clearance requirements prevented students from accessing off-site jobs in the local aerospace industry, Hawthorne High School partnered with Aero-Flex to establish an on-campus pre-apprenticeship, allowing students in the Manufacturing and Engineering academy to engage in real-world work in the industry and receive regular stipend checks without leaving their campus.

Beyond building technical skills, these WBL experiences provide crucial industry mentorship that helps students understand their post-high school options and develop connections to individuals working in fields of interest. They also help students connect career interests with the educational pathways needed to pursue them. Bringing in outside professionals provides a valuable perspective, said Lucas Pacheco, an instructor and academy coordinator for the Manufacturing and Engineering academy.

“I notice that they don’t take looking at their future very seriously until about halfway through their junior year,” he said. “And that’s where we’re trying to embed that mentorship, so they have somebody besides a teacher—because I think they start looking at their teachers kind of like how we all look at our parents: Just sometimes we’re speaking noise. But when I bring somebody from the outside in, all of a sudden there’s a different level of credence that’s coming with that. And they’re asking those people the same questions that they might ask me—and I’d give them the same answer—but they’re actually engaging and responding with it.”

Investing in Staff to Connect Students to College and Career Opportunities

Making career academies function effectively across three comprehensive high schools requires more than strong curriculum—it requires staff dedicated to helping students navigate college and career

opportunities. CVUHSD has invested in a network of educators, counselors, and coordinators who support students from career exploration through postsecondary planning.

At each high school, academy coordinators (who also serve as academy instructors) and CTE pathway specialists play particularly important roles. They help students enroll in DE courses, develop resumes, secure internships and apprenticeships, and connect classroom learning to future educational and career opportunities. At Hawthorne High School, CTE Pathway Specialist Sara Ott credits much of her work to lessons learned from the instructor who helped launch the Manufacturing and Engineering academy. Through that mentorship, she learned how to build relationships with employers and create work-based learning opportunities for students. For Ott, helping students discover what they do—and do not—want to do is just as important as helping them develop technical skills. Some students have told her they don't want to be engineers, but she tells them to try it out.

“‘We have a company that’s offering you a paid internship this summer,’ and we’re like, ‘so go get your feet wet,’” she said. “‘Learn what you don’t want to do, but learn those communication skills, learn how to work in a community, learn how to meet expectations and deadlines.’ So we try to teach them as much variety as we can and open as many doors as possible.”

The district also works closely with El Camino College to bring college counselors directly to high school campuses each week. These counselors help students develop educational plans, monitor academic progress, and understand their postsecondary options. If students struggle in DE courses, counselors coordinate with high school instructors to provide support and help students make informed decisions about how to continue on a pathway toward college and career success.

Starting With Strong Programs, Then Scaling

CVUHSD succeeded in scaling career academies with aligned dual enrollment districtwide by starting with one strong program as a model. The Manufacturing and Engineering academy at Hawthorne High School created an early proof point for integrating career-focused learning, dual enrollment, and work-based learning. When students in the academy began demonstrating strong engagement with both dual enrollment and work-based learning opportunities and began matriculating to college at higher rates, district leaders saw the potential to expand the model. Rather than replicating the academy exactly, they applied the same core principles—aligning pathways to student interests, embedding dual enrollment, incorporating work-based learning, and maintaining strong postsecondary partnerships—to new career fields and additional schools.

Those principles now underpin 10 career academies and pathways across the district’s three comprehensive high schools. CVUHSD’s experience demonstrates that large-scale implementation of career-connected dual enrollment does not have to happen all at once. Instead, districts seeking to strengthen career-connected dual enrollment can follow CVUHSD’s lead and identify high-quality programs with strong student interest, committed educators, and supportive college partners, and then use those programs as the foundation for broader expansion.

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