

# CASE STUDY

## Creating Computer Science Opportunities for ALL Students at Las Cruces Public Schools

### A Comprehensive Plan to Provide Equitable Access to High Quality CS to All Students at Every Grade Level and Every School

Near the high desert of southern New Mexico, the growing computer science program of the Las Cruces Public School (LCPS) system started to take off after a teacher-driven effort to learn more about computer science.

Teachers attended a CS4ALL conference in California and came away with a clear call to action:



**Provide computer science access to all students regardless of gender, SES, or background and empower students to develop agency in problem-solving, growth mindset, and critical thinking across all content areas.**

Providing equitable access to high quality computer science education to all students at every grade level and at every school became the goal of Las Cruces Public Schools.

Las Cruces is the second-largest city in New Mexico and is located in an area referred to as the Borderplex, which also includes the large cities of El Paso, Texas and Juarez, Mexico.

LCPS is home to almost 24,000 students, 80% of which are students of color and many of whom are English Language Learners. The majority of its students qualify for free or reduced lunch. Yet, district leaders have chosen to aim their focus beyond the potential challenges and toward the immense possibilities of building an exemplary K-12 computer science program to propel their students into a successful future.

Lisa Hufstedler is an Associate Director of Teaching and Learning for LCPS. In this role, she is tasked with creating an accessible and exceptional curriculum for computer science students in the district.

**“Computer science can empower our students. It provides them with agency and develops their problem-solving skills. In this day and age, those skills can be useful in almost any field they choose to pursue.”**

Along with ensuring equitable access to high quality computer science curriculum, the district is also working to grow participation in AP Computer Science courses and increase the numbers of traditionally underrepresented minorities in those classes.

To execute this plan, the district is fortunate to rely on dedicated teachers like Lauren Curry. Lauren has led CS efforts at LCPS for years and was a part of the group of teachers at the CS4ALL conference. Lauren has been the lead CS teacher at LCPS and has nine years of computer science teaching experience.

She shared that the curriculum portion of CodeHS has been most impactful for her classroom. “The videos, challenges, and quizzes have been the resources that have most helped me keep students engaged.”

For Monica Baeza, a teacher at Mayfield High School, her journey in computer science began in 2020. Monica began her teaching career 16 years ago as a secondary math instructor and now teaches Intro to Computer Science and

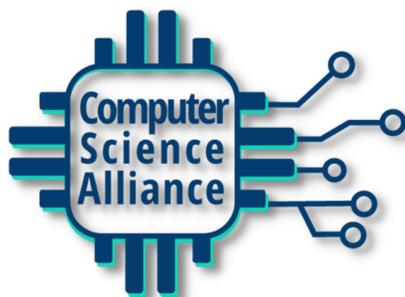
AP Computer Science Principles. With the help of CodeHS, Monica wants to develop a comprehensive pathway from Intro CS to AP CSA.



“In addition to the convenience of an online platform, I like that students can repeatedly run code until they find success and that they are given error messages to help debug their programs.”

At the high school level, freshmen students begin with the Introduction to Computer Science course and sophomores are introduced to the AP CSP course. In year three, Juniors take the Intro to Java / Data Simulations course. Then seniors complete the pathway by enrolling in AP CSA for their final year.

Part of fully preparing students for the world beyond high school has also included bringing that world to their doorstep. LCPS has cultivated partnerships with the following organizations to help do just that:



Former student Shea Blinkley found inspiration through her studies at Centennial High, spurred by the creative teaching of Melody Hagaman, a 2020 recipient of the Presidential Award for Excellence in Teaching. Melody was one of 107 teachers nationwide to receive the honor!

Additionally, Shea was able to further explore computer science through the Young Women in Computing program (YWiC) at New Mexico State University. The aim of the program is to increase the number of female students studying computer science at both the undergraduate and graduate levels. Shea is currently majoring in computer science and hopes to work in project management.

### **With a grand vision laid out, how does LCPS plan to reach its goals?**

**“The plan is to build a K-12 pathway for computer science across the entire district. Early exposure and engagement with our younger students is more likely to produce increased interest and participation in middle and high school courses. We are simultaneously working towards building content knowledge for teachers and increasing internal capacity.”**

CodeHS is proud to support such passionate and talented educators at Las Cruces Public Schools and can't wait to see their students meaningfully impact the future!