Professional Development for
LAUSD C-STEM Algebra 1 Pilot Course

UC DAVIS C-STEM Center

Assistive Teaching Tools for Boosting Algebra Learning Using Coding and Robotics

No coding or robotics experience necessary—PD provided by UC Davis C-STEM Center

Los Angeles Unified School District is partnering with the University of California, Davis to offer the C-STEM Algebra 1 course pilot. C-STEM Algebra 1 integrates coding and robotics technology into Algebra 1 content while maintaining focus on the objectives and standards. This course is aimed to use technology to extend learning as well as provide alternative experiences for students who do not flourish in a regular textbook classroom. Technology is used as a tool to help students expand their critical thinking skills and their ability to apply STEM concepts to real world situations. This pilot course will play a key role in the LAUSD Board's goal of raising student passing rates in UC/CSU A-G courses from 47% to 70% by 2026.

L.A. Unified has an approved C-STEM Algebra course number for students to earn A-G Mathematics G-credit during the pilot year. This course can be used in place of the Algebra 1 Tutorial Lab to support the Algebra 1 course.

For information regarding how to participate and offer the C-STEM Algebra 1 course in this initial pilot:
- C-STEM Algebra 1 Pilot for High Schools Interest Form

For detailed information regarding the C-STEM Center and C-STEM Algebra:
- C-STEM Center home page
- C-STEM Algebra Curriculum
- Success stories: Hillcrest High School (CA) video, Livermore High School (CA) success with at-risk students

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$y = -1.7(x + (-10))^2 + 22$

$d = 2t$
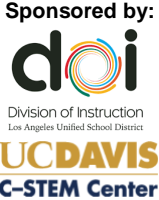$d = 4(t - 5)$ for $t > 5$
time (s)
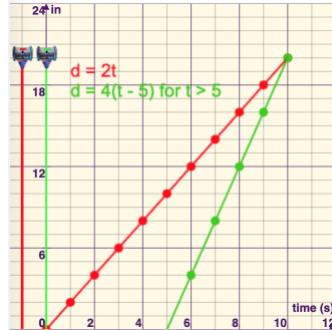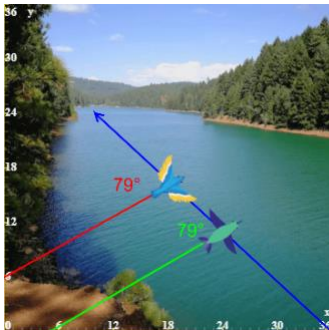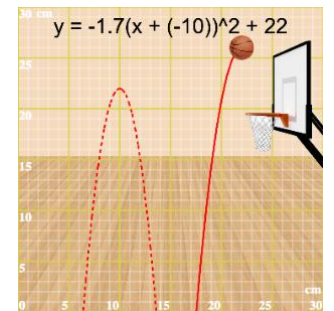
"As a teacher of mathematics for the past 28 years, I have to say that this is the best program I have worked with to inspire and focus on most struggling learners in Algebra." Susan Johnston, High School Math Teacher

"I really loved this training. In over 20 years of teaching I can't remember another one I enjoyed so much." Sandy Andersen, High School Math Teacher

"Working with the C-STEM program has brought so many positive impacts on my teaching, my school, and my students' learning on the STEM subjects. Students were excited each day we got to explore the programming and wanted to go deeper into the content with every lesson." Stephen Mason, High School Math Teacher

Informational Sessions: Thu, August 19, 3:30-4:30 pm and Tue, August 24, 3:30-4:30 pm
PD Dates/Times: Saturdays, Aug 28, Sep 11, Oct 2, Nov 6, Feb 5, 8 am-3 pm
Contact: Philip Ogbuehi, Ph.D., Coordinator, Secondary Mathematics
LAUSD, philip.ogbuehi@lausd.net

Sponsored by:
doi Division of Instruction
Los Angeles Unified School District
UC DAVIS C-STEM Center

UC Davis Center for Integrated Computing and STEM Education (C-STEM)
## Transforming Math and CS Education with Coding and Robotics

"We are very excited about our experiences and the successes we are having with C-STEM. C-STEM is a "game-changer"... I really mean it."

Mauricio Arellano
Superintendent, Redlands USD, CA
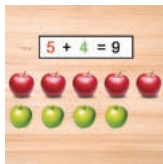
Engaged Distance Learning

The exciting hands-on computing and robotics classroom activities help students make meaningful connections between abstract math concepts and real-life applications.
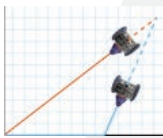
Life Skills

Both personalized and collaborative learning, and teamwork build students' confidence in learning by developing their abilities to think critically through real-world problem solving.

Career and College Ready

The rigorous curriculum teaches student's real-world problem solving using the most widely used programming language and Make technology in colleges and industry for integrated learning of math with computational thinking, science, engineering, and art. C-STEM is a UC Approved Educational Preparation Program for Undergraduate Admission for all UC campuses.

UC Davis C-STEM Center

Engaging students through integrated learning of math and science with hands-on coding, making, and robotics. The C-STEM Center works to empower educators to confidently integrate technology into their classroom while maintaining focus on the objectives and standards that they currently teach. Through the C-STEM program and curriculum, teachers use technology to extend learning as well as provide alternative experiences for students who do not flourish in a regular textbook classroom. Technology is used as a tool to help students expand their critical thinking skills and their ability to apply STEM concepts to real-world situations.

For at-risk and gifted students alike, C-STEM program can significantly increase their math performance

"Our math scores in SBAC increase every year since we adopted the C-STEM Robotics in 2016. This year, we saw that 88% of our students met or exceeded the math standards in 3rd grade, in comparison with 51% in 2015. This is 72% increase in four years."

Joe Erven, Principal, McPherson Magnet K-8 School
Orange USD, CA

"84% 'at-risk' students where all students previously struggled in math, the class finished with a 96% daily homework completion rate and an average grade of 84%. All students passed subsequent Geometry and Algebra 2 Classes."

Susan Johnston, Livermore HS

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C–STEM Center

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