



California Common Core State Standards

Mathematics + CS!

Strategies for the Integrated Teaching of Math and CS in Compliance with Both Common Core Math and CS Standards

This half-day workshop will introduce school administrators, STEAM teachers, and educators to the recently adopted California CS Standards and how, using coding and robotics, they can be integrated with the Common Core math standards in existing math classes within the Grade 3-5 and 6-8 bands.

In adopting the new California CS standards in 2018, the State Board of Education noted that “While communication of a compelling vision [of the importance of CS education for career] is vital, it must be accompanied by systems of support to build capacity of administrators, educators, community members, and students.” This workshop is designed to be one of those systems of support. It will be especially useful for Assistant Superintendents for Educational Services, Directors of Elementary and Secondary Education, Principals, and Math/CS/CTE/STEAM Coordinators and Teachers.

Workshop objectives include:

- Learning how to bring coding and robotics into Common Core math education, with a focus on aligning CS and math standards in grade bands 3-5 and 6-8
- Gaining familiarity with hands-on examples demonstrating the integration of CS and math standards and how they enhance learning
- Identifying the opportunities for transforming math and CS education in order to close the achievement gap and prepare students for higher education and careers
- Coming away with advice and best practices based on a decade of experience implementing CS and robotics in the math classroom

Presenters:

Prof. Harry Cheng, Director of the C-STEM Center, University of California at Davis. Dr. Cheng is a Professor in the Department of Mechanical and Aerospace Engineering, Graduate Group in Computer Science at UC Davis and founder of the UC Davis Center for Integrated Computing and STEM Education (C-STEM). He conducts research and teaching on computer programming, software design, and robotics. C-STEM is a UC Approved Educational Preparation Program for Undergraduate Admission for all UC campuses and has UCOP A-G Program Status. Over the last decade, he has pioneered work on systematically integrating computing and robotics into K-12 formal math education. His team has developed a comprehensive K-12 math curriculum with coding and robotics, including 14 UCOP-approved A-G courses, for 13 years of integrated hands-on learning of math and CS to [close the achievement gap](#). C-STEM organizes annual level playing field RoboPlay Competitions and GIRL (Girls in Robotics Leadership) Camps in different regions. His awards include the inaugural UC Davis Chancellor’s Innovator of the Year in 2016, the 2015 Distinguished Scholarly Public Service Award from UC Davis Academic Senate, and the 2013 MESA Achievement Award for a cumulative contribution to the field of Mechatronic and Embedded Systems and Applications (MESA) from the American Society of Mechanical Engineering.

Dr. Larry Lagerstrom, Chief Academic Officer, Barobo, Inc. Dr. Lagerstrom joined Barobo, which develops innovative robotics hardware, software, and curriculum for learning math via coding and robotics, as its Chief Academic Officer. Prior to Barobo he was at Stanford University for nine years, serving in various roles such as the Director of Online Learning for the School of Engineering and the Director of Academic Programs for the Stanford Center for Professional Development. He taught computer science and engineering for 15 years at UC Berkeley and UC Davis.

Date: Thursday, January 16, 2020 (reg deadline = Monday, January 13)

Time: 1:00-5:00 pm

Location: Sacramento County Office of Ed., 10474 Mather Blvd, Mather, CA

Cost: FREE! (space limited, sign up soon!)

To register: www.barobo.com/ws2020scoe

For more information: larry@barobo.com, c-stem.ucdavis.edu,
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