New CPS Computer Science Graduation Requirement to Prepare Students for Jobs of the Future
CPS Continues to Lead the Nation in Computer Science and STEM Education

CHICAGO – The Chicago Board of Education today unanimously approved the addition of computer science as a graduation requirement for all Chicago Public Schools (CPS) students beginning with next year's freshmen, the class of 2020. CPS has become a national leader in computer science education since Mayor Rahm Emanuel launched the Computer Science for All (CS4All) initiative for grades K-12 in December 2013.

"Making sure that our students are exposed to STEM and computer science opportunities early on is critical in building a pipeline to both college to career," said Mayor Emanuel. "Requiring computer science as a core requirement will ensure that our graduates are proficient in the language of the 21st century so that they can compete for the jobs of the future."

After CPS launched the CS4All initiative in 2013, several large urban districts have replicated a curriculum and model similar to Chicago's. In doing so, CPS became the first school district in the country to elevate computer science as a core requirement for high school, separate from math and science. Recognizing Chicago's success, the White House launched a national CS4All initiative earlier this month.

Experts estimate that demand for computing skills will outstrip supply, creating a gap of 1 million job openings by 2024. Currently, there are nearly 600,000 job openings in computing while universities produced fewer than 40,000 computer science graduates last year. Beginning next year with the incoming class of 2020, students will be required to complete one credit of computer science education as half of the two-credit Career Education requirement.

"No matter what field our students pursue, having exposure to STEM will provide critical skills and training for success in their careers and in life," said CPS CEO Forrest Claypool. "As a national leader in technology in the classroom, CPS will continue to push the envelope to challenge our students and ensure they're prepared for the future."

"Once again, Chicago is setting a national standard for STEM education in urban schools," said CPS CEdO Dr. Janice Jackson. "By ensuring that all CPS students graduate with computer science skills, we will give them a leg up and an opportunity to succeed in what is sure to be one of the most in-demand sectors of tomorrow's economy."

Recognizing that access to these programs early on is critical, CPS' model creates a pipeline for programming across grades K-12.To date, 107 CPS schools have implemented computer science curriculum, 41 of which are

high schools that have demonstrated readiness to implement the graduation requirement. The District's goal is to add 50-60 schools a year, focusing on high schools first.

CPS' Office of College and Career Success will support teachers through ongoing professional development, coaching, and program administration and provide technical assistance to schools to ensure they are able to implement the computer science graduation requirement successfully. Approximately 250 CPS teachers and administrators are already computer science certified, providing a foundation to support schools in implementing the graduation requirement.

CPS is currently developing a computer science education plan that will provide teachers and schools with detailed guidance on how to implement this requirement, the curricular standards, recommended teacher preparation, and authorized exceptions. CPS has also leveraged partnerships with Code.org, Google, Microsoft, the Illinois Technology Foundation, the CME Group, as well as a key partnership launched by visionary teachers at Northside College Prep with DePaul, UIC and Loyola Universities that leveraged several NSF-funded grants to provide computer science curriculum, teacher professional development, stipends and training for new and existing teachers.

As CPS works to revamp its technology platforms to become fully compatible for PARCC assessment, these upgrades will dually provide the equipment needed for computer science coursework. Additionally, next year a federal grant will enable CPS to outfit every classroom with high-speed broadband and Wi-Fi, accelerating the CS4All expansion to every high school and integrating technology into learning on a one-to-one basis. These investments mean that students will no longer be limited to learning technology only in computer labs.

CS4All was created to equip students with skills necessary for the 21st Century, creating a continuum for foundational computer science skills in elementary schools, expanding computer science classes to every high school, and elevating computer science to a core subject. The initiative builds on Mayor Emanuel's city-wide strategy to increase Chicago students' access to high-quality STEM learning experiences from early childhood through college and career. CS4All currently reaches 21,000 students across the District.

The Board of Education also unanimously voted to adjust the graduation requirements for Civic, Arts, and Service Learning programs, which were proposed in consultation with the CEO Principal Advisory Committee. These changes will not be new offerings, but will allow the current requirements to be met in additional ways.

Chicago Public Schools serves 392,000 students in 660 schools. It is the nation's third-largest school district.

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