

**BOARD OF HIGHER EDUCATION
RESOLUTION**

NO.: BHE 18-10

DATE: June 19, 2018

RESOLUTION REGARDING MASSCORE AND INCREASING ACCESS TO HIGH SCHOOL LEVEL COMPUTER SCIENCE COURSES

In January 2018, the Board of Elementary and Secondary Education (BESE) and the Board of Higher Education (BHE) passed a joint resolution directing their respective Commissioners to:

1. Develop a long term strategy to enable many more students graduating from Massachusetts public high schools to study computer science/computational thinking as part of MassCore, the recommended program of studies in high school, and
2. Increase the number of students interested in pursuing computer science as a field of study in postsecondary education and, by extension, those students interested in pursuing careers in technology following graduation from a postsecondary institution.

See BHE 18-04. In response to this directive, it is anticipated that during its June 26, 2018 meeting, BESE will amend MassCore, the Commonwealth's recommended course of study for all high school students, to allow a substitution of a computer science course for either a laboratory science course or for a mathematics course within MassCore. (See Attachment A). The proposed amendment would further require that any such computer science course recognized as an adequate substitution must include rigorous mathematical or scientific concepts that align with the BESE's Digital Literacy and Computer Science (DLCS) curriculum standards.

MOVED: Subject to BESE's passage of the aforementioned amendment to MassCore (Attachment A), the Board of Higher Education hereby charges the Commissioner of Higher Education to work with the Commissioner of Elementary and Secondary Education to identify the criteria necessary for computer science courses to be included as substitutions for MassCore mathematics and laboratory science courses, for the purpose of, among other things, ensuring alignment with admissions requirements for the state's public colleges and

universities. Said criteria shall:

- 1) Be developed in consultation with disciplinary experts in the higher education community and shall ensure sufficient course rigor, course quality, and student preparedness for college-level course taking; and
- 2) Ensure alignment with parallel efforts to develop Math Pathways from pre-kindergarten through four years of postsecondary education (P-16 Math Pathways).

The identification of said criteria and courses shall be completed by December 31, 2018, following which the Commissioners shall report back to their respective boards.

Authority: M.G.L. c. 15A, §9(u)

Contact: Patricia A. Marshall, Ph.D., Deputy Commissioner for Academic Affairs and Student Success
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APPENDIX A

Board of Elementary and Secondary Education Meeting: June 26, 2018
Agenda Item: Expanding Access to Computer Science and Recommended
Amendment to MassCore

WHEREAS: the Board of Elementary and Secondary Education recognizes that computer science is an important addition to the academic program. It forms the basis for a significant and growing component of the Commonwealth's knowledge-based economy in the twenty-first century. Knowledge and skills in computer science are foundational for students interested in pursuing a wide variety of careers in science, technology, engineering, mathematics, and beyond. Further, the Board also recognizes that many high school students do not yet have access to high quality computer science course offerings.

Therefore, it is

MOVED: (1) that the Board of Elementary and Secondary Education, in collaboration with the Board of Higher Education, commits to leading a state-wide effort to significantly expand computer science course offerings at the high school level, with the ultimate goal of providing all Massachusetts public high school students with access and opportunity; and further

(2) that the Board of Elementary and Secondary Education, in accordance with Chapter 69, Sections 1B and 1D of the General Laws, hereby amends MassCore, the Recommended High School Core Program of Studies for College- and Career-Readiness, to allow a computer science course that includes rigorous mathematical or scientific concepts and aligns with the Board's Digital Literacy and Computer Science (DLCS) curriculum standards, to substitute for either a laboratory science course or a mathematics course; and further

(3) that the Commissioner is directed to collaborate with the Commissioner of Higher Education to identify the criteria necessary for computer science courses to be included as substitutions for MassCore mathematics and laboratory science courses. Said criteria shall be developed in consultation with disciplinary experts in the higher education community to ensure sufficient course rigor, course quality, and student preparedness for college-level course taking, and shall be aligned with parallel efforts to develop Math Pathways from pre-kindergarten through four years of

postsecondary education (P-16 Math Pathways). The identification of said criteria and courses shall be completed by December 31, 2018, to facilitate implementation starting in the 2019-20 school year; and further

(4) that the Commissioner is directed to identify strategic opportunities for increasing the capacity of all educators to teach computer science concepts, as well as increasing as the supply of licensed computer science teachers; and further

(5) that the Commissioner shall periodically report to the Board on the progress of this initiative.