THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

OFFICE OF CURRICULUM AND INSTRUCTION
Director of Curriculum and Instruction

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To: BOCES District Superintendents
Superintendents of Public Schools
Principals of Public and Non-Public Schools
Charter School Leaders

From: Mary Cahill

Subject: Using Courses in Computer Science to Meet the Requirements for a Regents or Local Diploma

Current regulations provide schools and districts with the flexibility to offer courses in computer science and programming that can be used to meet graduation requirements.

Computer science has been defined by the Computer Science Teachers Association (CSTA) as "the study of computers and algorithmic processes, including their principles, their hardware and software designs, their applications, and their impact on society" (see http://csta.acm.org/Curriculum/sub/CurrResources.html). In broader terms, computer science is about developing new ways to use computer devices to solve problems.

Many of today's newly created jobs, including those that offer good compensation packages and a positive work/life balance, are those that involve computer science and programming. In addition, a commitment to computer science and coding in the K-12 setting promises long-term equity benefits, particularly for girls and students of color, who are typically underrepresented in these fields.

According to Code.org, a nonprofit organization committed to increasing access to computer science for students in the K-12 settings, computer science and programming ("coding") develops students' computational and critical thinking skills and shows them how to create, not simply use, new technologies.

New York State's current graduation requirements call for 22 units of credit at the commencement level, including three units of credit in both mathematics and science. Although courses in computer science can be used for elective credit, there are provisions in Section 100.5 of the Commissioner's Regulations through which courses in computer science may be used to meet the mathematics or science diploma credit requirements.

Section 100.5(b)(7)(iv) of the Commissioner's Regulations allows diploma credit to be granted for specialized courses. A specialized course is a course that meets the

requirements of a unit of credit as defined in Section 100.1(a) and the New York State commencement-level learning standards as established by the Commissioner. A specialized course develops the subject in greater depth and/or breadth and/or may be inter-disciplinary. After passing the required New York State assessment or approved alternative in mathematics, science, or English language arts, the remaining units of credit required in that discipline may be in specialized courses. In a public high school, an interdisciplinary specialized course shall be taught by a teacher certified in at least one of the subjects.

Further, Section 100.5(b)(7)(iv)(j) of the Commissioner's Regulations provides that the State learning standards in technology education may be met either through a course in technology education or through an integrated course combining technology with mathematics and/or science. Computer technology is addressed in Technology Standard five, Key Idea three. A commencement-level course in technology education may be used as the third unit of credit in science or mathematics, but not both.

The above provisions give flexibility to schools and districts to use courses in computer science to meet the unit of study requirements for either mathematics or science, including local course offerings or other courses such as AP Computer Science A.

Districts can find computer science resources for teachers and students at the Code.org website, especially their "Hour of Code" introductory program at http://code.org/learn. Their K-12 program consists of an innovative approach to professional development, curriculum, and other materials.

Please contact the Office of Curriculum and Instruction by email at emscurric@mail.nysed.gov or by phone at 518-474-5922 for questions concerning computer science. Thank you for your continued support with this important and challenging work.