

[Second Reprint]

**SENATE, No. 2032**

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**STATE OF NEW JERSEY**  
**216th LEGISLATURE**

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INTRODUCED MAY 5, 2014

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**SYNOPSIS**

Requires DOE to review Core Curriculum Content Standards to ensure that they incorporate modern computer science standards where appropriate.

**CURRENT VERSION OF TEXT**

As amended on December 7, 2014 by the Senate pursuant to the Governor's recommendations.

**(Sponsorship Updated As Of: 6/26/2015)**

1 AN ACT concerning computer science education <sup>2</sup>[and  
2 supplementing chapter 35 of Title 18A of the New Jersey  
3 Statutes]<sup>2</sup>.

4  
5 **BE IT ENACTED** by the Senate and General Assembly of the State  
6 of New Jersey:

7  
8 1. The Legislature finds and declares that:

9 a. Computer science is transforming industry, creating new  
10 fields of commerce, driving innovation in all fields of science, and  
11 bolstering productivity in established economic sectors.

12 b. The federal Bureau of Labor Statistics predicts that by the  
13 year 2020, there will be 4.2 million jobs in computing and  
14 information technology in the United States, putting these fields  
15 among the fastest growing occupational fields.

16 c. The College Board reports that of the 3.4 million Advanced  
17 Placement exams given in 2011, only about 20,000 of those were in  
18 computer science.

19 d. In the 2012-2013 school year, only 9 states allowed  
20 computer science courses to count toward secondary school core  
21 graduation requirements, chilling student interest in computer  
22 science courses.

23 e. Many states' middle and high school curriculums are almost  
24 exclusively focused on skill-based aspects of computing and have  
25 few standards on the conceptual aspects of computer science that  
26 lay the foundation for innovation and deeper study in the field.

27 f. Computer science education has been encumbered by  
28 confusion with technology education and the use of technology in  
29 education, which are related but distinct concepts.

30 g. Exposing middle and high school students to computer  
31 science education in New Jersey would give them a deeper  
32 knowledge of the fundamentals of computing, yielding critical  
33 thinking skills that will serve them throughout their lives in  
34 numerous fields.

35 h. It is appropriate at this time that the Department of  
36 Education <sup>2</sup>[and the school districts in the State revise curricula]  
37 review curriculum standards<sup>2</sup> to better educate young people in this  
38 important subject area and thus better prepare our students for  
39 effective citizenship in the 21<sup>st</sup> century.

40  
41 <sup>2</sup>[2. <sup>1</sup>[Within 180 days of the effective date of this act, the]  
42 The<sup>1</sup> State Board of Education shall develop rigorous curriculum  
43 guidelines in computer science at the middle and high school levels

**EXPLANATION** – Matter enclosed in bold-faced brackets **[thus]** in the above bill is not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

Matter enclosed in superscript numerals has been adopted as follows:

<sup>1</sup>Senate SBA committee amendments adopted June 23, 2014.

<sup>2</sup>Senate amendments adopted in accordance with Governor's recommendations December 7, 2014.

1 that shall be incorporated within the existing Technology and  
2 Science Core Curriculum Content Standards, where  
3 appropriate<sup>1</sup>. The goal of the curriculum guidelines shall be:

- 4 a. to prepare students to understand the nature of computer  
5 science and its place in the modern world;  
6 b. to foster an understanding that computer science interweaves  
7 concepts and skills;  
8 c. to enable students to use computer science skills, primarily  
9 computational thinking, in their problem-solving activities in other  
10 subjects; and  
11 d. to complement information technology and Advanced  
12 Placement computer science curricula in school districts in which  
13 they are currently offered. ]<sup>2</sup>

14  
15 <sup>2</sup>[3. Beginning in the <sup>1</sup>[2015-2016]<sup>1</sup> school year <sup>1</sup>following the  
16 development by the State Board of Education of the curriculum  
17 guidelines pursuant to section 2 of this act<sup>1</sup>, a school district shall  
18 <sup>1</sup>require a student incorporate, where appropriate, computer  
19 science curriculum guidelines<sup>1</sup> in grades 6 through 12 <sup>1</sup>to  
20 complete a continuum of courses in the field of computer science.  
21 The courses shall be which are<sup>1</sup> in conformance with the  
22 curriculum guidelines <sup>1</sup>established developed<sup>1</sup> by the State board  
23 <sup>1</sup>pursuant to section 2 of this act<sup>1</sup>. ]<sup>2</sup>

24  
25 <sup>2</sup>2. The Department of Education shall undertake a review of the  
26 Core Curriculum Content Standards to ensure that they incorporate  
27 modern computer science standards where appropriate. The  
28 department shall report any findings and recommendations to the  
29 Governor by December 31, 2015.<sup>2</sup>

30  
31 <sup>2</sup>[4.] <sup>3.</sup><sup>2</sup> As used in this act, “computer science” means the study  
32 of computers and algorithmic processes and includes the study of  
33 computing principles, computer hardware and software design,  
34 computer applications, and the impact of computers on society.

35  
36 <sup>2</sup>[5.] <sup>4.</sup><sup>2</sup> This act shall take effect immediately.