

**Senate Study Bill 1047 - Introduced**

SENATE/HOUSE FILE \_\_\_\_\_  
BY (PROPOSED GOVERNOR BILL)

**A BILL FOR**

1 An Act relating to computer science education by providing  
2 for education standards by the state board of education,  
3 for instructor endorsements and authorizations issued by  
4 the board of educational examiners, for establishment of a  
5 computer science professional development incentive fund,  
6 and for the establishment of a computer science education  
7 work group.

8 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

1 Section 1. Section 256.7, subsection 26, paragraph a, Code  
2 2017, is amended by adding the following new subparagraph:

3 NEW SUBPARAGRAPH. (4) The rules shall provide for the  
4 establishment of high-quality standards for computer science  
5 education taught by elementary, middle, and high schools,  
6 in accordance with the goal established under section  
7 284.6A, subsection 1, setting a foundation for personal and  
8 professional success in a high-technology, knowledge-based  
9 Iowa economy. Such rules shall be applicable only to school  
10 districts and accredited nonpublic schools receiving moneys  
11 from the computer science professional development incentive  
12 fund under section 284.6A, or from other funds administered by  
13 the department for the same purposes as specified in section  
14 284.6A, subsection 2.

15 Sec. 2. Section 272.2, Code 2017, is amended by adding the  
16 following new subsection:

17 NEW SUBSECTION. 20. Establish by rule endorsements and  
18 authorizations for computer science instruction, including  
19 traditional and nontraditional pathways for obtaining such  
20 endorsements or authorizations.

21 Sec. 3. NEW SECTION. **284.6A Computer science professional**  
22 **development incentive fund — legislative findings.**

23 1. The general assembly finds and declares all of the  
24 following:

25 a. That instruction in high-quality computer science for  
26 elementary, middle school, and high school students establishes  
27 a foundation for personal and professional success in a  
28 high-technology, knowledge-based Iowa economy.

29 b. It is the goal of the general assembly that by July  
30 1, 2019, each accredited high school offer at least one  
31 high-quality computer science course, each accredited middle  
32 school offer instruction in exploratory computer science, and  
33 each accredited elementary school offer instruction in the  
34 basics of computer science.

35 c. It is the intent of the general assembly to appropriate

1 moneys for purposes of the computer science professional  
2 development incentive fund for the fiscal year beginning July  
3 1, 2018.

4 2. Subject to an appropriation of sufficient funds by the  
5 general assembly, the computer science professional development  
6 incentive fund is established in the state treasury under the  
7 control of the department. The department may disburse moneys  
8 contained in the fund for professional development activities  
9 or tuition reimbursement as follows:

10 a. A school district or accredited nonpublic school, or  
11 a collaborative of one or more school districts, accredited  
12 nonpublic schools, and area education agencies, may apply to  
13 the department, in the manner prescribed by the department, to  
14 receive moneys from the fund to provide proven professional  
15 development activities for Iowa teachers in the area of  
16 computer science education.

17 b. A school district or accredited nonpublic school  
18 may apply to the department, in the manner prescribed by  
19 the department, to receive moneys from the fund to provide  
20 tuition reimbursement for Iowa teachers seeking endorsements  
21 or authorizations for computer science under section 272.2,  
22 subsection 20.

23 3. Notwithstanding section 8.33, moneys in the computer  
24 science professional development incentive fund that remain  
25 unencumbered or unobligated at the close of the fiscal year  
26 shall not revert but shall remain available for expenditure  
27 for the purposes designated until the close of the succeeding  
28 fiscal year.

29 Sec. 4. COMPUTER SCIENCE EDUCATION WORK GROUP.

30 1. The director of the department of education shall  
31 convene a computer science education work group to identify  
32 and recommend measures for incentivizing school districts and  
33 accredited nonpublic schools to meet the following goals by the  
34 school year beginning July 1, 2019:

35 a. Offer at least one high-quality computer science course

1 in each high school.

2 b. Offer instruction in exploratory computer science in  
3 each middle school.

4 c. Offer instruction in the basics of computer science in  
5 each elementary school.

6 2. The work group shall also develop recommendations that,  
7 at a minimum, address or identify the following:

8 a. How one or more high-quality computer science courses can  
9 satisfy high school graduation requirements for mathematics or  
10 science.

11 b. How one or more high-quality computer science courses can  
12 be integrated into a career and technical education pathway.

13 c. Multiple settings for the delivery of high-quality high  
14 school computer science courses, including traditional high  
15 school classes, concurrent enrollment classes, and online  
16 learning classes that include the opportunity for students to  
17 collaborate within a classroom setting.

18 d. Guidelines for creating a kindergarten through grade  
19 twelve career pathway in computer science, with an appropriate  
20 scope and sequence for high-quality computer science  
21 instruction at each such grade level.

22 e. How the computer science professional development  
23 incentive fund established under section 284.6A, if enacted  
24 by this Act, could be used to meet the goals set forth in  
25 subsection 1.

26 3. The membership of the work group shall represent  
27 kindergarten through grade twelve school districts and  
28 accredited nonpublic schools, higher education, business,  
29 labor, and other appropriate stakeholders.

30 4. The work group shall submit its findings and  
31 recommendations, including any proposed legislation, in a  
32 report to the governor, the state board of education, and the  
33 general assembly by November 1, 2017.

34 Sec. 5. DIRECTIVE TO STATE BOARD OF EDUCATION. The state  
35 board of education shall submit a notice of intended action to

1 the administrative rules coordinator and the administrative  
2 code editor pursuant to section 17A.4, subsection 1, paragraph  
3 "a", not later than December 13, 2017, for the adoption of  
4 rules to implement section 256.7, subsection 26, paragraph "a",  
5 subparagraph (4), as enacted in this Act.

6 EXPLANATION

7 The inclusion of this explanation does not constitute agreement with  
8 the explanation's substance by the members of the general assembly.

9 This bill requires the state board of education to adopt  
10 computer science education standards, requires the board of  
11 educational examiners to establish computer science instructor  
12 endorsements and authorizations and alternative pathways to  
13 obtain such endorsements and authorizations, establishes a  
14 computer science professional development incentive fund in  
15 the state treasury, and directs the department of education to  
16 convene a computer science education work group.

17 The bill directs the state board of education to adopt rules  
18 providing for the establishment of high-quality standards  
19 for computer science education taught by elementary, middle,  
20 and high schools. The rules shall be applicable only to  
21 those school districts and schools that receive moneys from  
22 the incentive fund or from other funds administered by the  
23 department for the same purposes as specified for the incentive  
24 fund. The state board must submit notice of intended action as  
25 provided in Code section 17A.4(1)(a) by December 13, 2017.

26 The board of educational examiners is directed to establish  
27 by rule endorsements and authorizations for computer science  
28 instruction, including traditional and nontraditional pathways  
29 for obtaining such endorsements or authorizations.

30 Under the bill, the general assembly finds and declares  
31 that instruction in high-quality computer science for  
32 elementary, middle school, and high school students establishes  
33 a foundation for personal and professional success in a  
34 high-technology, knowledge-based Iowa economy. The goal of  
35 the general assembly is for each accredited high school to

1 offer at least one high-quality computer science course, each  
2 accredited middle school to offer instruction in exploratory  
3 computer science, and each accredited elementary school to  
4 offer instruction in the basics of computer science.

5 It is the intent of the general assembly to appropriate  
6 moneys for purposes of the computer science professional  
7 development incentive fund for the fiscal year beginning July  
8 1, 2018. The fund is established by the bill in the state  
9 treasury under the control of the department, subject to an  
10 appropriation of sufficient funds by the general assembly.

11 Moneys from the fund can be disbursed to a school district  
12 or accredited nonpublic school, or a collaborative of one  
13 or more school districts, accredited nonpublic schools,  
14 and area education agencies, to provide proven professional  
15 development activities for Iowa teachers in the area of  
16 computer science education. Moneys from the fund can also be  
17 disbursed to a school district or accredited nonpublic school  
18 to provide tuition reimbursement for Iowa teachers seeking  
19 endorsements or authorizations for computer science. A school  
20 district, accredited nonpublic school, or a collaborative,  
21 as appropriate, must apply to the department in the manner  
22 prescribed by the department in order to receive moneys from  
23 the fund. Moneys in the fund that remain unencumbered or  
24 unobligated at the close of the fiscal year shall not revert  
25 but shall remain available for expenditure for the purposes  
26 designated until the close of the succeeding fiscal year.

27 The bill requires the director of the department of  
28 education to convene a computer science education work group  
29 to identify and recommend measures for incentivizing school  
30 districts and accredited nonpublic schools to meet, by the  
31 school year beginning July 1, 2019, the goals of offering at  
32 least one high-quality computer science course in each high  
33 school, offering instruction in exploratory computer science in  
34 each middle school, and offering instruction in the basics of  
35 computer science in each elementary school.

1 The work group must also develop recommendations that, at  
2 a minimum, address or identify how one or more high-quality  
3 computer science courses can satisfy high school graduation  
4 requirements for mathematics or science; how one or more  
5 high-quality computer science courses can be integrated into  
6 a career and technical education pathway; multiple settings  
7 for the delivery of high-quality high school computer science  
8 courses, including traditional high school classes, concurrent  
9 enrollment classes, and online learning classes that include  
10 the opportunity for students to collaborate within a classroom  
11 setting; guidelines for creating a kindergarten through grade  
12 12 career pathway in computer science, with an appropriate  
13 scope and sequence for high-quality computer science  
14 instruction at each such grade level; and how the computer  
15 science professional development incentive fund could be used  
16 to meet the computer science instruction goals.

17 The work group's membership must represent kindergarten  
18 through grade 12 school districts and accredited nonpublic  
19 schools, higher education, business, labor, and other  
20 appropriate stakeholders. The work group must submit  
21 its findings and recommendations, including any proposed  
22 legislation, in a report to the governor, the state board of  
23 education, and the general assembly by November 1, 2017.