House Study Bill 107 - Introduced

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.