A BILL FOR AN ACT

RELATING TO EDUCATION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1   SECTION 1. The legislature finds that computer science

2 drives job growth and innovation throughout the economy and

3 society of the State. The legislature further finds that

4 occupations involving computing make up over two-thirds of all

5 projected new jobs in STEM fields, making computer science one

6 of the most in-demand college degrees. The legislature

7 additionally finds that, although seventy-one per cent of new

8 STEM jobs are in computing, only eight per cent of STEM

9 graduates hold degrees in computer science.

10   The legislature also finds that recent survey and research

11 results highlight the importance of robust computer science

12 curricula, and the disparity between the demand for computer

13 science education and its availability. For example:

14   (1) Ninety per cent of parents want their child's school

15   to teach computer science, but only forty per cent of

16   schools teach it;

1 (2) Fifty per cent of Americans rank computer science as

2   one of the two most important subjects of study after

3   reading and writing;

4 (3) Seventy-five per cent of Americans believe computer

5   science is cool in a way it wasn't ten years ago;

6 (4) Students who learn computer science in high school are

7   six times more likely to major in it, and women are

8   ten times more likely; and

9 (5) Sixty-seven per cent of parents and fifty-six per cent

10   of teachers believe students should be required to

11   learn computer science.

12 The legislature further finds that, as of December 2016,

13 there were 1,343 open computing jobs in Hawaii, and that the

14 average salary for a computing occupation in Hawaii is $78,414,

15 compared to the average salary in the State, which is $47,740.

16 The legislature additionally finds that only one hundred fifty-

17 five students graduated with a computer science degree in 2014,

18 of which nineteen per cent were female. The legislature also

19 finds that only fourteen schools in Hawaii offered the advanced

20 placement computer science course in 2015-2016, and that while

21 ninety per cent of parents want their children to learn computer

1 science, only forty per cent of schools teach computer

2 programming.

3   The purpose of this Act is to require that the department

4 of education adopt a broad framework to provide all students

5 with access to computer science, including best practices that

6 the department shall include to support and expand computer

7 science education.

8   SECTION 2. Chapter 302A, Hawaii Revised Statutes, is

9 amended by adding a new section to be appropriately designated

10 and to read as follows:

11 "**§302A-   Computer science curricula plan.** (a) The

12 department shall develop and implement a computer science

13 curricula plan statewide for students from kindergarten through

14 twelfth grade, which shall include:

15   (1) The goals of the computer science curricula;

16   (2) Strategies for accomplishing the department's goals;

17   and

18   (3) Timelines for carrying out the strategies described in

19   the plan.

20   (b) The department shall establish, and make publicly

21 available, computer science standards across all grade levels

1 from kindergarten through twelfth grade. The standards

2 established by the department shall focus on the creation and

3 use of software and computing technologies at all grade levels.

4   (c) The department shall provide dedicated funding for

5 rigorous computer science professional development and course

6 support in the department's budget.

7   (d) The department shall establish certification pathways

8 for computer science teachers.

9   (e) The department shall establish dedicated computer

10 science administrative and leadership positions.

11   (f) The department shall require that every public

12 intermediate, middle, and high school offer computer science

13 courses based on rigorous standards for each grade level, and

14 may allow remote and in-person courses.

15   (g) Any student who completes a computer science course

16 shall receive credit for that course toward core graduation

17 requirements at the school that the student attends.

18   (h) The department shall adopt rules in accordance with

19 chapter 91 to implement this section."

1   SECTION 3. Chapter 304A, Hawaii Revised Statutes, is

2 amended by adding a new section to be appropriately designated

3 and to read as follows:

4   "**§304A-**   **Computer science courses; admission requirement**

5 **substitution.** As part of its admission process, the University

6 of Hawaii shall allow students to substitute computer science

7 courses for other required course credits."

8   SECTION 4. New statutory material is underscored.

9   SECTION 5. This Act shall take effect upon its approval.

10

INTRODUCED BY: _____

Report Title:
Department of Education; Schools; Computer Science; Curricula Plan

Description:
Requires the department of education to develop and implement a state plan for computer science education in all public schools. Requires public intermediate, middle, and high schools to offer computer science courses for grades six through twelve. Allows applicants to the University of Hawaii to substitute computer science courses for other admission requirements.

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