A BILL FOR AN ACT

RELATING TO EDUCATION.

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

1   PART I

2   SECTION 1. The legislature finds that the economic

3 disruption caused by the global COVID-19 pandemic has

4 illustrated a need to diversify Hawaii's economy beyond tourism.

5 The pandemic has also shown the importance of digital literacy,

6 particularly as applied to distance learning, tele-health

7 appointments, and working from home.

8   The legislature further finds that the economic disruption

9 has increased the focus on computer science education as a key

10 driver of economic growth and digital literacy. A computer

11 science pipeline can help to diversify Hawaii's economy away

12 from tourism and into cybersecurity, green energy, robotics, and

13 other technology-based fields. Previously, the legislature

14 passed Act 51, Session Laws of Hawaii 2018, which prioritized

15 statewide computer science education by:

16   (1) Requiring the department of education to develop and

17   implement a statewide computer science curriculum plan

1   for public school students in kindergarten through

2   twelfth grade that may include design thinking as part

3   of the curriculum; and

4   (2) Beginning with the 2021-2022 school year, ensuring

5   that each public high school offers at least one

6   computer science course during each school year.

7   According to a June 2020 report from the University of

8 Hawaii at Manoa, Act 51, Session laws of Hawaii 2018, was one of

9 several initiatives that led to a rapid increase in computer

10 science activities in education between 2017 and 2020. These

11 activities have resulted in thirty-three public high schools and

12 eleven combination schools now offering computer science

13 courses. The number of students who took the Advanced Placement

14 Computer Science Principles test and the Advanced Placement

15 Computer Science A test increased 89.6 per cent and 28.7 per

16 cent from the 2017-2018 school year to the 2018-2019 school

17 year, respectively. Further, the percentage of schools offering

18 Advanced Placement Computer Science courses have increased from

19 6.8 per cent during the 2017-2018 school year to 22.7 per cent

20 during the 2019-2020 school year.

1   The purpose of this Act is to improve digital literacy

2   throughout the State by further increasing computer science

3   education offerings at public schools.

4   PART II

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

6   amended by adding a new section to part III, subpart C, to be

7   appropriately designated and to read as follows:

8   "§302A-   **Computer science education special fund;**

9   **established.** (a) There is established the computer science

10 special fund into which shall be deposited:

11   (1) Appropriations by the legislature to the special fund;

12   and

13   (2) Gifts, donations, and grants from public agencies and

14   private persons for computer science training and

15   computer science pathways.

16   (b) The computer science special fund shall be

17 administered by the department to provide grants to eligible

18 entities to:

19   (1) Deliver professional development programs for teachers

20   providing instruction in computer science courses and

21   computer science content; and

1   (2) Support computer science pathways in kindergarten

2   through twelfth grade, including work-based learning

3   partnerships.

4   (c) By December 1, 2022, and each December 1 thereafter,

5 the department shall submit to the board and the legislature a

6 report summarizing the grant program, including recipients of

7 grants, uses of grant funds, and the amounts of each grant

8 provided during the previous year."

9   SECTION 3. Section 302A-101, Hawaii Revised Statutes, is

10 amended by adding three new definitions to be appropriately

11 inserted and to read as follows:

12   ""Computer science" means the study of computers and

13 algorithmic processes, including their principles, their

14 hardware and software designs, their implementation, and their

15 impact on society.

16   "Computer science content" means courses of instruction

17 that provide:

18   (1) Computer science instruction that is integrated with

19   another subject; and

20   (2) A final grade to each student.

1   "Computer science courses" means courses of instruction

2   that provide:

3   (1)   Computer science instruction in standalone

4   implementations; and

5   (2)   A final grade to each student."

6   SECTION 4.   Section 302A-323, Hawaii Revised Statutes, is

7   amended to read as follows:

8   "[+]§302A-323[+]   **Computer science; curricula plan; public**

9   **schools**.   (a)   The department shall:

10   (1)   Develop and implement a statewide computer science

11   curricula plan for public school students in

12   kindergarten through twelfth grade that may include

13   design thinking as part of the curricula; and

14   (2)   Beginning with the 2021-2022 school year, ensure that

15   each public high school offers at least one computer

16   science course during each school year.

17   (b)   Beginning with the 2022-2023 school year, at least one

18   public elementary school and one public middle or intermediate

19   school in each complex area shall offer computer science courses

20   or computer science content.

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1   (c) Beginning with the 2023-2024 school year, no less than

2   fifty per cent of public elementary schools and no less than

3   fifty per cent of public middle and intermediate schools in each

4   complex area shall offer computer science courses or computer

5   science content.

6   (d) Beginning with the 2024-2025 school year, all public

7   elementary, middle, and intermediate schools shall offer

8   computer science courses or computer science content.

9   (e) By June 30, 2022, and by each June 30 thereafter, each

10   complex area shall submit to the superintendent a report of the

11   computer science courses and computer science content offered

12   during the previous school year at the schools in that complex

13   area. The report shall include:

14   (1) The names and course codes of the computer science

15   courses offered at each school;

16   (2) The number and percentage of students enrolled in each

17   computer science course and computer science content,

18   disaggregated by:

19   (A) Gender;

20   (B) Race and ethnicity;

1   (C)   Special education status, including students

2   eligible for special education under the federal

3   Individuals with Disabilities Education Act, as

4   amended, or section 504 of the federal

5   Rehabilitation Act of 1973, as amended;

6   (D)   English language learner status;

7   (E)   Eligibility for the free and reduced price lunch

8   program; and

9   (F)   Grade level;

10   provided that if a category contains one to five

11   students, or contains an amount that would allow the

12   amount of another category that contains one to five

13   students to be determined, the number of students

14   shall be replaced with a symbol indicating that one to

15   five students fulfilled that particular category;

16   (3)   The names and course codes of the courses containing

17   computer science content and a description of the

18   computer science standards and content that are

19   covered by those courses; and

20   (4)   The number of computer science instructors at each

21   school, disaggregated by:

1   (A)   Any applicable certification;

2   (B)   Gender; and

3   (C)   Race and ethnicity.

4   (f)   The superintendent shall compile the information

5 received pursuant to subsection (e) and, by December 1, 2022,

6 and each December 1 thereafter, shall submit a summary of the

7 previous school year to the board and the legislature.

8   (g)   For the purposes of this section, "offer" means to

9 provide a computer science course or computer science content

10 taught in the English or Hawaiian language by a teacher:

11   (1)   Who is physically located at the school; or

12   (2)   Who is not physically located at the school but

13   provides instruction through virtual means with the

14   assistance of a proctor who is physically located at

15   the school."

16   PART III

17   SECTION 5.   Chapter 302D, Hawaii Revised Statutes, is

18 amended by adding a new section to be appropriately designated

19 and to read as follows:

20   "§302D-   **Computer science.**   (a)   Beginning with the

21 2024-2025 school year, each public charter school that serves

1 elementary, middle, intermediate, or high school students shall

2 offer computer science courses or computer science content at a

3 frequency that allows a student to enroll in a computer science

4 course or receive computer science content at least once while

5 the student is at each of the elementary school, middle or

6 intermediate school, and high school levels.

7   (b) For the purpose of this section, "offer" shall have

8 the same meaning as in section 302A-323."

9   SECTION 6. Section 302D-1, Hawaii Revised Statutes, is

10 amended by adding three new definitions to be appropriately

11 inserted and to read as follows:

12   ""Computer science" shall have the same meaning as in

13 section 302A-101.

14   "Computer science content" shall have the same meaning as

15 in section 302A-101.

16   "Computer science courses" shall have the same meaning as

17 in section 302A-101."

18   PART IV

19   SECTION 7. Statutory material to be repealed is bracketed

20 and stricken. New statutory material is underscored.

21   SECTION 8. This Act shall take effect on July 1, 2050.

Report Title:
Education; Department of Education; Public Schools; Charter Schools; Computer Science

Description:
Requires public and charter schools to offer education in computer science. Requires annual reports. Effective 7/1/2050. (HD1)