

---

---

# 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 the importance of  
2 computer science cannot be overstated. For example, fifty per  
3 cent of Americans rank computer science as one of the most  
4 important subjects of study, after reading and writing, and  
5 seventy-five per cent of Americans believe computer science is  
6 cool.

7           The legislature further finds that computing-based  
8 occupations make up more than two-thirds of all projected new  
9 jobs in the science, technology, engineering, and mathematics  
10 fields, commonly known as STEM fields. This means that college  
11 graduates with computer science degrees are in high demand among  
12 employers across the nation. Students who learn computer  
13 science in high school are six times more likely to major in it  
14 in college, and women who learn computer science in high school  
15 are ten times more likely to major in it in college.

16           The legislature also finds that recent survey and research  
17 results show a disparity between the demand for computer science



1 education and its availability. Although sixty-seven per cent  
2 of parents and fifty-six per cent of teachers believe students  
3 should be required to learn computer science, and ninety per  
4 cent of parents want their children's schools to teach computer  
5 science, only forty per cent of schools offer these courses.  
6 Further, although seventy-one per cent of new STEM jobs are in  
7 computing, only eight per cent of STEM graduates hold degrees in  
8 computer science.

9       The legislature concludes that there are similar  
10 disparities at the State level, where computer science has the  
11 potential to drive job growth and innovation throughout the  
12 economy. As of December 2016, there were 1,343 open computing  
13 jobs in Hawaii, and the average salary for these computing jobs  
14 was \$78,414, which is much higher than the state average salary  
15 of \$47,740. However, only one hundred fifty-five Hawaii  
16 students graduated with a computer science degree in 2014, and  
17 only fourteen schools in Hawaii offered the advanced placement  
18 computer science course in 2015-2016. The legislature finds  
19 that promoting computer science education is a matter of  
20 statewide concern.



1 The purpose of this Act is to promote computer science  
2 education in the State by:

3 (1) Requiring the department of education to:

4 (A) Develop and implement a statewide computer  
5 science curricula plan for public school students  
6 in kindergarten through twelfth grade; and

7 (B) Beginning with the 2021-2022 school year, ensure  
8 that each public high school offers at least one  
9 computer science course during each school year;  
10 and

11 (2) Authorizing the department of education to enter into  
12 a contract or agreement with other entities to develop  
13 and implement computer science teacher development  
14 programs.

15 SECTION 2. Chapter 302A, Hawaii Revised Statutes, is  
16 amended by adding two new sections to be appropriately  
17 designated and to read as follows:

18 "§302A- Computer science; curricula plan; public  
19 schools. The department shall:



1       (1) Develop and implement a statewide computer science  
2       curricula plan for public school students in  
3       kindergarten through twelfth grade; and

4       (2) Beginning with the 2021-2022 school year, ensure that  
5       each public high school offers at least one computer  
6       science course during each school year.

7       §302A-       Computer science teacher development programs.

8       (a) The department may enter into a contract or agreement with  
9       one or more entities to develop and implement computer science  
10      teacher development programs; provided that an entity shall be:

11      (1) An educational agency, including a charter educational  
12      agency, or a consortia of educational agencies in the  
13      State;

14      (2) An institution of higher education located in the  
15      State; or

16      (3) A nationally recognized provider of effective computer  
17      science professional development.

18      (b) An entity that intends to enter into a contract or  
19      agreement with the department pursuant to this section shall  
20      first submit a proposal to the department that, at minimum,  
21      shall address how the entity plans to:



- 1        (1) Instruct teachers with varying levels of knowledge and  
2                    experience in computer science;
- 3        (2) Provide teachers with experience in hands-on, inquiry-  
4                    based practices;
- 5        (3) Utilize effective practices for professional  
6                    development;
- 7        (4) Emphasize the conceptual foundations of computer  
8                    science;
- 9        (5) Instruct teachers how to effectively teach students in  
10                   computer science, including students from demographic  
11                   groups that are historically underrepresented in  
12                   computer science careers;
- 13        (6) Adapt its instruction to accommodate the particular  
14                   needs of teachers in different schools and districts;  
15                   and
- 16        (7) Meet other requirements established by the  
17                   department."

18        SECTION 3. There is appropriated out of the general  
19 revenues of the State of Hawaii the sum of \$                    or so  
20 much thereof as may be necessary for fiscal year 2018-2019 to  
21 the department of education to develop a computer science



1 curricula plan, offer computer science classes, and contract for  
2 teacher development programs pursuant to section 2 of this Act.

3 The sum appropriated shall be expended by the department of  
4 education for the purposes of this Act.

5 SECTION 4. The appropriation authorized under this Act  
6 shall not lapse at the end of the fiscal year for which the  
7 appropriation is made. Any unexpended and unencumbered balance  
8 of the appropriation made in this Act as of the close of  
9 business on June 30, 2019, shall lapse.

10 SECTION 5. New statutory material is underscored.

11 SECTION 6. This Act shall take effect on July 1, 2050.



**Report Title:**

DOE; Computer Science; Appropriation

**Description:**

Requires the Department of Education to develop and implement a statewide computer science curricula plan for public school students in K-12 and ensure each public high school offers at least 1 computer science course each school year. Authorizes the Department of Education to contract for computer science teacher development programs. Appropriates funds. Effective 7/1/2050. (SD2)

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

