

SECOND REGULAR SESSION

HOUSE BILL NO. 3139

103RD GENERAL ASSEMBLY

INTRODUCED BY REPRESENTATIVE SMITH (68).

6915H.01I

JOSEPH ENGLER, Chief Clerk

AN ACT

To repeal section 170.018, RSMo, and to enact in lieu thereof one new section relating to computer science courses in schools.

Be it enacted by the General Assembly of the state of Missouri, as follows:

Section A. Section 170.018, RSMo, is repealed and one new section enacted in lieu thereof, to be known as section 170.018, to read as follows:

170.018. 1. (1) For purposes of this section, "computer science course" means a course in which students study computers ~~[and]~~, algorithmic processes, **cybersecurity, social media training, and artificial intelligence** including their principles, hardware and software designs, implementation, and impact on society. The term shall include, but not be limited to, a stand-alone course at any elementary, middle, or high school or a course at any elementary or middle school that embeds computer science content within other subjects.

(2) The department of elementary and secondary education shall, before July 1, 2019, develop a high school graduation policy that allows a student to fulfill one unit of academic credit with a district-approved computer science course meeting the standards of subsection 2 of this section for any mathematics, science, or practical arts unit required for high school graduation. The policy shall require that all students have either taken all courses that require end-of-course examinations for math and science or are on track to take all courses that require end-of-course examinations for math and science under the Missouri school improvement program in order to receive credit toward high school graduation under this subsection.

(3) A school district shall communicate to students electing to use a computer science course for a mathematics unit that some institutions of higher education may require four

EXPLANATION — Matter enclosed in bold-faced brackets ~~[thus]~~ in the above bill is not enacted and is intended to be omitted from the law. Matter in **bold-face** type in the above bill is proposed language.

18 units of academic credit in mathematics for college admission. The parent, guardian, or legal
19 custodian of each student who chooses to take a computer science course to fulfill a unit of
20 academic credit in mathematics shall sign and submit to the school district a document
21 containing a statement acknowledging that taking a computer science course to fulfill a unit
22 of academic credit in mathematics may have an adverse effect on college admission
23 decisions.

24 (4) The department of elementary and secondary education and the department of
25 higher education and workforce development shall cooperate in developing and implementing
26 academic requirements for computer science courses offered in any grade or grades not lower
27 than the ninth nor higher than the twelfth grade.

28 2. (1) The department of elementary and secondary education shall convene a work
29 group to develop and recommend rigorous academic performance standards relating to
30 computer science for students in kindergarten and in each grade not higher than the twelfth
31 grade. The work group shall include, but not be limited to, educators providing instruction in
32 kindergarten or in any grade not higher than the twelfth grade and representatives from the
33 department of elementary and secondary education, the department of higher education and
34 workforce development, business and industry, and institutions of higher education. The
35 department of elementary and secondary education shall develop written curriculum
36 frameworks relating to computer science that may be used by school districts. The
37 requirements of section 160.514 shall not apply to this section.

38 (2) The state board of education shall adopt and implement academic performance
39 standards relating to computer science beginning in the 2019-20 school year.

40 3. Before July 1, 2019, the department of elementary and secondary education shall
41 develop a procedure by which any teacher who holds a certificate of license to teach under
42 section 168.021 and demonstrates sufficient content knowledge of computer science shall
43 receive a special endorsement on the teacher's license signifying the teacher's specialized
44 knowledge in computer science.

45 4. (1) For purposes of this subsection, "eligible entity" means:

46 (a) A local educational agency, or a consortium of local educational agencies, in the
47 state, including charter schools that have declared themselves local educational agencies;

48 (b) An institution of higher education in the state; or

49 (c) A nonprofit or private provider of nationally recognized and high-quality
50 computer science professional development, as determined by the department of elementary
51 and secondary education.

52 (2) There is hereby created in the state treasury the "Computer Science Education
53 Fund". The fund shall consist of all moneys that may be appropriated to it by the general
54 assembly and any gifts, contributions, grants, or bequests received from private or other

55 sources for the purpose of providing teacher professional development programs relating to
56 computer science. The state treasurer shall be custodian of the fund. In accordance with
57 sections 30.170 and 30.180, the state treasurer may approve disbursements. The fund shall be
58 a dedicated fund and, upon appropriation, moneys in the fund shall be used solely for the
59 administration of grants to eligible entities as described in this section. Notwithstanding the
60 provisions of section 33.080 to the contrary, any moneys remaining in the fund at the end of
61 the biennium shall not revert to the credit of the general revenue fund. The state treasurer
62 shall invest moneys in the fund in the same manner as other funds are invested. Any interest
63 and moneys earned on such investments shall be credited to the fund.

64 (3) The state board of education shall award grants from the computer science
65 education fund to eligible entities for the purpose of providing teacher professional
66 development programs relating to computer science. An eligible entity wishing to receive
67 such a grant shall submit an application to the department of elementary and secondary
68 education addressing how the entity plans to:

- 69 (a) Reach new and existing teachers with little computer science background;
- 70 (b) Use effective practices for professional development;
- 71 (c) Focus the training on the conceptual foundations of computer science;
- 72 (d) Reach and support historically underrepresented students in computer science;
- 73 (e) Provide teachers with concrete experience with hands-on, inquiry-based practices;
- 74 and
- 75 (f) Accommodate the particular needs of students and teachers in each district and
76 school.

77 5. (1) For all school years beginning on or after July 1, 2023, each public high school
78 and charter high school shall offer at least one computer science course in an in-person setting
79 or as a virtual or distance course option.

80 (2) Any computer science course or instruction offered under this subsection shall:

- 81 (a) Be of high quality as defined by the state board of education;
- 82 (b) Meet or exceed the computer science performance standards developed and
83 adopted by the department of elementary and secondary education under this section; and
- 84 (c) For any computer science course offered by a public high school or charter high
85 school, be offered in such school's course catalog.

86 (3) On or before June thirtieth of each school year, each school district shall submit to
87 the department of elementary and secondary education a report for the current school year
88 which shall include, but not be limited to:

- 89 (a) The names and course codes of computer science courses offered in each school in
90 the district with a course description and which computer science performance standards are
91 covered, to the extent such information is available;

92 (b) The number and percentage of students who enrolled in each computer science
93 course, listed by the categories in subparagraphs a. to f. of this paragraph. If a category
94 contains one to five students or contains a quantity of students that would allow the quantity
95 of another category that contains five or fewer to be deduced, the number shall be replaced
96 with a symbol:

97 a. Sex;

98 b. Race and ethnicity;

99 c. Special education status including, but not limited to, students receiving services
100 under the federal Individuals with Disabilities Education Act (IDEA) (20 U.S.C. Section 1400
101 et seq., as amended) or Section 504 of the federal Rehabilitation Act of 1973 (29 U.S.C.
102 Section 794), as amended;

103 d. English language learner status;

104 e. Eligibility for free or reduced price meals; and

105 f. Grade level; and

106 (c) The number of computer science instructors at each school, listed by the following
107 categories:

108 a. Applicable certifications;

109 b. Sex;

110 c. Race and ethnicity; and

111 d. Highest academic degree.

112 (4) On or before September thirtieth of each school year, the department of
113 elementary and secondary education shall post the following on the department's website:

114 (a) Data received under paragraphs (a) and (b) of subdivision (3) of this subsection,
115 disaggregated by school and aggregated statewide; and

116 (b) Data received under paragraph (c) of subdivision (3) of this subsection,
117 aggregated statewide.

118 (5) On or before June thirtieth of each school year, the department of elementary and
119 secondary education shall publish a list of computer science course codes and names with a
120 course description and an indication of which courses meet or exceed the department of
121 elementary and secondary education's computer science performance standards.

122 6. The department of elementary and secondary education shall appoint a computer
123 science supervisor. The computer science supervisor shall be responsible for implementing
124 the provisions of this section.

125 7. For all school years beginning on or after July 1, 2023, a computer science course
126 successfully completed and counted toward state graduation requirements shall be equivalent
127 to one science course or one practical arts credit for the purpose of satisfying any admission
128 requirements of any public institution of higher education in this state.

129 **8. (1) The workgroup established under subsection 2 of this section shall develop**
130 **additional academic performance standards for computer science courses that**
131 **incorporate academic requirements related to cybersecurity, social media training,**
132 **and artificial intelligence.**

133 **(2) The state board of education shall adopt and implement such academic**
134 **performance standards beginning in the 2027-28 school year.**

135 **(3) For the 2027-28 school year and all subsequent school years:**

136 **(a) Each pupil who receives a high school diploma or certificate of graduation**
137 **shall have satisfactorily completed one-half unit of academic credit with a computer**
138 **science course before the end of grade twelve; and**

139 **(b) Before a pupil may substitute a course that fulfills any mathematics, science,**
140 **or practical arts unit required for high school graduation, the pupil shall satisfactorily**
141 **complete one-half unit of academic credit with a computer science course.**

142 ~~[8-]~~ **9.** The department of elementary and secondary education shall promulgate rules
143 to implement the provisions of this section. Any rule or portion of a rule, as that term is
144 defined in section 536.010, that is created under the authority delegated in this section shall
145 become effective only if it complies with and is subject to all of the provisions of chapter 536
146 and, if applicable, section 536.028. This section and chapter 536 are nonseverable and if any
147 of the powers vested with the general assembly pursuant to chapter 536 to review, to delay the
148 effective date, or to disapprove and annul a rule are subsequently held unconstitutional, then
149 the grant of rulemaking authority and any rule proposed or adopted after December 18, 2018,
150 shall be invalid and void.

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