

By: Representatives Felsher, Bennett,
Creekmore IV, Deweese, McCarty, Owen, Summers

To: Education

COMMITTEE SUBSTITUTE
FOR
HOUSE BILL NO. 633

1 AN ACT TO CREATE THE MISSISSIPPI COMPUTER SCIENCE AND CYBER
2 EDUCATION EQUALITY ACT; TO AUTHORIZE AND DIRECT THE STATE
3 DEPARTMENT OF EDUCATION TO IMPLEMENT A MANDATORY K-12 COMPUTER
4 SCIENCE CURRICULUM BASED ON THE MISSISSIPPI COLLEGE AND
5 CAREER-READINESS STANDARDS FOR COMPUTER SCIENCE, WHICH INCLUDES
6 INSTRUCTION IN, BUT NOT LIMITED TO, COMPUTATIONAL THINKING,
7 CYBER-RELATED, PROGRAMMING, CYBER SECURITY, DATA SCIENCE, ROBOTICS
8 AND OTHER COMPUTER SCIENCE AND CYBER-RELATED CONTENT; TO PRESCRIBE
9 MINIMUM COMPONENTS OF THE CURRICULUM AT EACH GRADE LEVEL; AND TO
10 PROVIDE FOR TEACHER TRAINING AS NEEDED AT ALL GRADE LEVELS.

11 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MISSISSIPPI:

12 **SECTION 1.** This act shall be known, and maybe cited, as the
13 "Mississippi Computer Science and Cyber Education Equality Act."

14 **SECTION 2.** The Mississippi Legislature finds that:

15 (a) Education in computer science is a critical need
16 for the students of Mississippi for the twenty-first century;

17 (b) More than half of high schools in Mississippi do
18 not teach a computer science course; and

19 (c) The logical thinking skills taught by computer
20 science are very valuable in many noncomputer science jobs, as
21 technology has become embedded in most professions.



22 **SECTION 3.** As used in this act, the following terms shall
23 have the meaning ascribed in this section:

24 (a) "Computer science" means the study of computers,
25 algorithmic processes, coding, and logical thinking, including
26 computer principles, their hardware and software designs, their
27 implementation and their impact on society.

28 (b) "Computer science courses" means high school and
29 middle school courses that teach computer science as stand-alone
30 implementations; and elementary curriculum that provides
31 instruction in computer science as stand-alone implementations or
32 embedded in other subjects and focuses on how to create and
33 understand technology, rather than simply using technology.

34 (c) "Offer" means providing instruction at the
35 elementary level with licensed teachers, and at the high school
36 and middle school level as a course taught by a computer science
37 teacher:

38 (i) Who is onsite at the physical location of the
39 school; or

40 (ii) Who is not onsite at the physical location of
41 the school but conducts the course through virtual means with a
42 proctor onsite at the physical location of the school.

43 **SECTION 4.** (1) The State Department of Education is
44 authorized and directed to implement K-12 computer science
45 curriculum based on the 2018 Mississippi College and



46 Career-Readiness Standards for computer science, which includes
47 instruction in, but not limited to:

- 48 (a) Computational thinking;
- 49 (b) Problem-solving;
- 50 (c) Programming;
- 51 (d) Cyber security;
- 52 (e) Data science;
- 53 (f) Robotics;
- 54 (g) Artificial intelligence and machine learning; and
- 55 (h) Other computer science and cyber-related content.

56 (2) The State Department of Education shall work with the
57 Center for Cyber Education at Mississippi State University to
58 identify and develop K-12 computer science curriculum and delivery
59 options.

60 (3) Beginning in the 2022-2023 school year:

61 (a) Each local school district shall provide that all
62 middle schools in its school system offer instruction in
63 foundations of computer science;

64 (b) Each local school district shall provide that fifty
65 percent (50%) of elementary schools in its school system offer a
66 minimum of one (1) hour of instruction in computer science each
67 week;

68 (c) Each charter school that serves middle or high
69 school students shall offer a course in computer science; and



70 (d) Each charter school that serves elementary school
71 students shall offer instruction in computer science.

72 (4) Beginning in the 2023-2024 school year:

73 (a) Each local school district shall provide that at
74 least fifty percent (50%) of the high schools in its school system
75 offer a course in computer science;

76 (b) Each local school district shall provide that all
77 elementary schools in its school system offer a minimum of one (1)
78 hour of instruction in exploratory computer science each week.

79 (5) Beginning in the 2024-2025 school year, each local
80 school district shall provide that all schools in its school
81 system offer instruction in computer science.

82 **SECTION 5.** The State Department of Education shall review
83 district-submitted courses to enable schools to utilize high
84 quality online computer science courses to meet the needs of such
85 schools as a result of this act.

86 **SECTION 6.** (1) Subject to appropriations made by the
87 Legislature, the State Department of Education shall provide
88 annual training for teachers, counselors and administrators in
89 order to phase in the K-12 computer science curriculum. Preference
90 should be given to districts who have the fewest number of
91 teachers trained in computer science. The State Department of
92 Education shall work with the Center for Cyber Education at
93 Mississippi State University to develop and coordinate teacher
94 training. The State Department of Education may contract with



95 private and nonprofit providers for teacher training and for
96 student instruction, and is encouraged to utilize available
97 cost-free computer training, instruction and resources. Teachers
98 may receive computer science instruction training through an
99 online platform.

100 (2) The State Department of Education shall provide a report
101 by January 1, 2022, to the Governor, the Lieutenant Governor, the
102 Speaker of the House of Representatives, the Chairman of the
103 Senate Education Committee and the Chairman of the House Education
104 Committee. The report shall include a strategic plan for
105 statewide computer science education initiatives including, but
106 not limited to, the following:

107 (i) A summary of the current state landscape for
108 K-12 computer science education;

109 (ii) A plan for expanding computer science
110 education opportunities to every school in the state by 2024-2025
111 school year;

112 (iii) A plan for the development of preservice and
113 in-service teachers seeking a computer science endorsement or
114 course specific license, in order to meet the timeline for course
115 requirements;

116 (iv) The development of a vetted list of approved
117 vendors in computer science education that are recognized as high
118 quality computer science courses or instruction, which should
119 weigh preference on cost and ease of implementation; and



120 (v) The identification of approved computer
121 science courses that may fulfill at least four (4) units of
122 academic credit for high school graduation. The State Department
123 of Education shall work with the Board of Trustees of State
124 Institutions of Higher Learning and the Mississippi Community
125 College Board to approve these courses once identified.

126 (2) The State Department of Education shall submit a report
127 by December 31 of each year through 2025 to the Governor, the
128 Lieutenant Governor, the Speaker of the House of Representatives,
129 the Chairman of the Senate Education Committee and the Chairman of
130 the House Education Committee. The report shall include a list of
131 schools in each district teaching computer science and the number
132 of computer science teachers trained in each district.

133 **SECTION 7.** The Board of Trustees of State Institutions of
134 Higher Learning shall work with its member institutions to
135 identify preservice teacher preparation programs to allow for
136 certification in the computer science field.

137 **SECTION 8.** This act shall take effect and be in force from
138 and after July 1, 2021.

