## Pending COMMITTEE AMENDMENT NO 1 PROPOSED TO

## House Bill No. 1165

## **BY: Committee**

Amend by striking all after the enacting clause and inserting in lieu thereof the following:

12 **SECTION 1.** The Mississippi Legislature finds that: 13 Education in computer science is a critical need (a) for the students of Mississippi for the twenty-first century; 14 15 More than half of high schools in Mississippi do 16 not teach a computer science course; 17 (c) There are multitudes of unfulfilled computer science jobs in the state; and 18 The logical thinking skills taught by computer 19 (d) 20 science are very valuable in many noncomputer science jobs, as 21 technology has become embedded in most professions.

- 22 **SECTION 2.** 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 a course taught by a
- 35 computer science teacher:
- 36 (i) Who is onsite at the physical location of the
- 37 school; or
- 38 (ii) Who is not onsite at the physical location of
- 39 the school but conducts the course through virtual means with a
- 40 proctor onsite at the physical location of the school.
- 41 **SECTION 3.** (1) The State Department of Education is
- 42 authorized and directed to implement K-12 computer science
- 43 curriculum based on the 2018 Mississippi College and
- 44 Career-Readiness Standards for computer science, which includes
- 45 instruction in, but not limited to:
- 46 (a) Computational thinking;

- 47 (b) Problem-solving;
- 48 (c) Programming;
- (d) Cyber security;
- 50 (e) Data science;
- 51 (f) Robotics; and
- 52 (g) Other computer science and cyber-related content.
- 53 (2) Beginning in the 2021-2022 school year:
- 54 (a) Each local school district shall provide that all
- 55 middle schools in its school system offer instruction in
- 56 exploratory computer science;
- 57 (b) Each local school district shall provide that fifty
- 58 percent (50%) of elementary schools in its school system offer a
- 59 minimum of one (1) hour of instruction in computer science each
- 60 week;
- (c) Each charter school that serves middle or high
- 62 school students shall offer a course in computer science;
- 63 (d) Each charter school that serves elementary school
- 64 students shall offer instruction in computer science.
- 65 (3) Beginning in the 2022-2023 school year:
- 66 (a) Each local school district shall provide that at
- 67 least fifty percent (50%) of the high schools in its school system
- 68 offer a course in computer science;
- (b) Each local school district shall provide that all
- 70 elementary schools in its school system offer a minimum of one (1)
- 71 hour of instruction in exploratory computer science each week.

- 72 (4) Beginning in the 2023-2024 school year, each local
- 73 school district shall provide that all schools in its school
- 74 system offer instruction in computer science.
- 75 **SECTION 4.** The State Department of Education shall ensure
- 76 that the Mississippi Virtual School operated pursuant to Section
- 77 37-161-3 has sufficient capacity to enable schools to utilize high
- 78 quality instruction computer science courses to meet the needs of
- 79 such schools as a result of this act.
- 80 **SECTION 5.** (1) Subject to appropriations made by the
- 81 Legislature, the State Department of Education shall provide
- 82 annual training for teachers, counselors and administrators in
- 83 order to phase in the K-12 computer science curriculum.
- 84 Preference should be given to districts who have the fewest number
- 85 of teachers trained in computer science. The State Department of
- 86 Education shall work with the Center for Cyber Education at
- 87 Mississippi State University to develop and coordinate teacher
- 88 training. The State Department of Education may contract with
- 89 private and nonprofit providers for teacher training and for
- 90 student instruction, and is encouraged to utilize available
- 91 cost-free computer training, instruction and resources. Teachers
- 92 may receive computer science instruction training through an
- 93 online platform.
- 94 (2) The State Department of Education shall:
- 95 (a) Convene a task force composed of at least one (1)
- 96 representative from each of the following categories:

- 97 (i) The State Superintendent of Education;
- 98 (ii) A local superintendent of education where at
- 99 least fifty percent (50%) of the schools in the district teach
- 100 computer science;
- 101 (iii) A local superintendent of education where
- 102 less than fifty percent (50%) of the schools in the district teach
- 103 computer science;
- 104 (iv) A Grade K-5 teacher;
- 105 (v) A Grade 6-8 teacher;
- 106 (vi) A Grade 9-12 teacher;
- 107 (vii) A representative from a state institution of
- 108 higher learning; and
- 109 (viii) A representative from the business
- 110 community.
- 111 (b) The task force shall provide a report by January 1,
- 112 2021, to the Governor, the Lieutenant Governor, the Speaker of the
- 113 House of Representatives, the Chairman of the Senate Education
- 114 Committee and the Chairman of the House Education Committee. The
- 115 report shall include a strategic plan for statewide computer
- 116 science education initiatives, including, but not limited to, the
- 117 following:
- 118 (i) A summary of the current state landscape for
- 119 K-12 computer science education;



120	(ii) A plan for expanding computer science
121	education opportunities to every school in the state by the
122	2023-2024 school year;
123	(iii) A plan for the development of preservice and
124	in-service teachers seeking a computer science endorsement or
125	course specific license, in order to meet timeline for course
126	requirements;
127	(iv) The development of a vetted list of approved
128	vendors in computer science education that are recognized as high
129	quality computer science courses or instruction, which should
130	weigh preference on cost and ease of implementation; and
131	(v) The identification of approved computer
132	science courses that may fulfill one (1) unit of academic credit
133	for mathematics or science courses for high school graduation.
134	(2) The State Department of Education shall submit a report
135	by December 31 of each year through 2024 to the Governor, the
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- by December 31 of each year through 2024 to the Governor, the
  Lieutenant Governor, the Speaker of the House of Representatives,
  the Chairman of the Senate Education Committee and the Chairman of
  the House Education Committee. The report shall include a list of
  schools in each district teaching computer science and the number
  of computer science teachers trained in each district.
- SECTION 6. This act shall take effect and be in force from and after July 2, 2020, and shall stand repealed on July 1, 2020.

Further, amend by striking the title in its entirety and inserting in lieu thereof the following:



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

