

WEST VIRGINIA LEGISLATURE

2019 REGULAR SESSION

Introduced

Senate Bill 267

BY SENATORS CARMICHAEL (MR. PRESIDENT) AND

PREZIOSO

(BY REQUEST OF THE EXECUTIVE)

[Introduced January 11, 2019; Referred

to the Committee on Education]

1 A BILL to amend and reenact §18-2-12 of the Code of West Virginia, 1931, as amended, relating
2 to requiring the State Board of Education to adopt a policy detailing the appropriate level
3 of computer science instruction that shall be available to students at each programmatic
4 level; and requiring the West Virginia Department of Education to develop and offer
5 professional development opportunities.

Be it enacted by the Legislature of West Virginia:

ARTICLE 2. STATE BOARD OF EDUCATION.

§18-2-12. Computer science courses of instruction; learning standards; state board plan development.

1 (a) Legislative findings:

2 (1) Computer technology increasingly is pervasive in nearly every function of society from
3 consumer products to transportation, communications, electrical infrastructure, logistics,
4 agriculture, medical treatments, research, security, and financial transactions;

5 (2) The U. S. Bureau of Labor Statistics predicts that by 2024, there will be more than
6 800,000 new jobs in the STEM fields and more than two thirds of these directly will be in
7 computing occupations;

8 (3) Studying computer science prepares students to enter many career areas, both within
9 and outside of computing, teaching them logical reasoning, algorithmic thinking, design, and
10 structured problem-solving skills applicable in many contexts from science and engineering to the
11 humanities and business;

12 (4) Computer science is an established discipline at the collegiate and post-graduate
13 levels but, unfortunately, computer science concepts and courses have not kept pace in the K-12
14 curriculum, to the point that the nation faces a serious shortage of computer scientists at all levels
15 that is likely to continue for the foreseeable future; and

16 (5) Organizations such as the Computer Science Teachers Association, the International
17 Society for Technology in Education, and technology industry leaders have developed

18 recommendations for standards, curriculum, and instructional resources for computer technology
19 learning in K-12 schools.

20 (b) Prior to the 2017 regular legislative session, the state board shall submit a plan to the
21 Legislative Oversight Commission on Education Accountability for the implementation of
22 computer science instruction and learning standards in the public schools. The plan shall include
23 at least the following:

24 (1) Recommendations for a core set of learning standards designed to provide the
25 foundation for a complete computer science curriculum and its implementation at the K-12 level
26 including, but not limited to:

27 (A) Introducing the fundamental concepts of computer science to all students, beginning
28 at the elementary school level;

29 (B) Presenting computer science at the secondary school level in a way that is both
30 accessible and worthy of an academic curriculum credit and may fulfill a computer science, math,
31 or science graduation credit;

32 (C) Encouraging schools to offer additional secondary level computer science courses
33 that will allow interested students to study facets of computer science in more depth and prepare
34 them for entry into the workforce or college; and

35 (D) Increasing the availability of rigorous computer science for all students;

36 (2) Recommendations for teaching standards and secondary certificate endorsements if
37 necessary for teachers to deliver curriculum appropriate to meet the standards;

38 (3) Recommendations for units of instruction or courses in academic and vocational
39 technical settings that complement any existing K-12 computer science and IT curricula where
40 they are already established, especially the advanced placement computer science curricula and
41 professional IT certifications; and

42 (4) Proposals for implementation of the recommendations over a period not to exceed
43 four years and estimates of any associated additional costs.

44 (c) Nothing in this section requires adoption or implementation of any specific
45 recommendation or any level of appropriation by the Legislature.

46 (d) Recognizing the importance of computer science instruction and how computer
47 science instruction will assist students in their transition to post-secondary opportunities, prior to
48 the 2020-2021 school year, the state board shall adopt a policy detailing the appropriate level of
49 computer science instruction that shall be available to students at each programmatic level.

50 (e) The West Virginia Department of Education shall develop and offer professional
51 development opportunities to ensure educators are equipped with the requisite knowledge and
52 skill to deliver computer science instruction as outlined in this section. The department may
53 partner with high-quality computer science professional learning providers in developing and
54 offering the professional development opportunities.

NOTE: The purpose of this bill is to require the State Board of Education to adopt a policy detailing the appropriate level of computer science instruction available to students. The bill requires the West Virginia Department of Education to develop and offer professional development opportunities.

Strike-throughs indicate language that would be stricken from a heading or the present law and underscoring indicates new language that would be added.