

# WEST VIRGINIA CODE: §18-2-12

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

(a) Legislative findings:

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

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

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

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

(5) Organizations such as the Computer Science Teachers Association, the International Society for Technology in Education, and technology industry leaders have developed recommendations for standards, curriculum, and instructional resources for computer technology learning in K-12 schools.

(6) Foundational age-appropriate instruction in the computer science field for all students beginning in elementary school with required and optional advanced computer science instruction for middle school and high school students has become an important component of a well-developed education. Computer science standards should align to relevant aspects of the field such as computational thinking, block-based programming, text-based programming, network communication, computer architecture, coding, application development, and cyber security. Computer science education standards should be established to ensure students have the fundamentals to be successful in a digital-driven world and the advanced knowledge to prepare them for careers in or linked to computer science.

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

(c) Recognizing the importance of computer science instruction and how computer science instruction will assist students in their transition to post-secondary opportunities, the state board shall adopt a policy detailing the appropriate level of computer science instruction that shall be available to students at each programmatic level.

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