

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
Second Regular Session

HOUSE BILL NO. **9286**



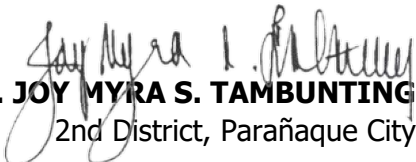
Introduced by **HON. JOY MYRA S. TAMBUNTING**

EXPLANATORY NOTE

Most industries, if not all, use data and computer technology on a daily basis. As such, it is important to ensure that the general population are reoriented and fully prepared for a world where technology is omnipresent. Computer Science education has been linked with higher rates of college enrollment and improved problem-solving abilities among students globally. Computer Science is considered to be an important element in strengthening existing education models and preparing students for the future through the study of the theory behind the applications, structure, and design of a computational system, and the specialization in the theory or computation.

In this regard, this measure seeks to integrate Computer Science Education into the curriculum of the K-12 Program. With the passage of this measure, computer science, computer literacy, and information and communication technology shall become parts of the basic subjects offered to students at all levels beginning Kindergarten. This shall also further revise the K-12 program to create a Computer Science and Information and Communications Technology (ICT) strand under the Academic Track offered to Senior High School Students.

On behalf of the people of Parañaque City's Second District, and for the common good of the Filipino people, the approval of the said measure is earnestly sought.


REP. JOY MYRA S. TAMBUNTING
2nd District, Parañaque City

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HOUSE BILL NO. **9286**

Introduced by **HON. JOY MYRA S. TAMBUNTING**

AN ACT
INTEGRATING COMPUTER SCIENCE IN THE CURRICULUM OF THE ENHANCED BASIC
EDUCATION (K-12) PROGRAM, APPROPRIATING FUNDS THEREFOR, AND FOR
OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. Short Title. – This act shall be known as the "Computer Science in Schools Act."

SEC. 2. Declaration of Principles. – It is the policy of the State to provide an integrated system of education that is complete, adequate, and relevant to the needs of the people and society.

Likewise, it is hereby declared the policy of the State to develop a method of education that keeps up-to-date with modern technology, effectively equipping its graduates with the necessary skills for the changing times.

Towards this end, the state shall constantly renew and review the existing curricula to ensure the inclusion, learning and utilization of modern technologies, computers, and other similar devices.

SEC. 3. Definition of Terms. – For purposes of this Act, the following terms shall be mean:

- a. "Computer" shall mean an electronic device that accepts digitized data for the purpose of storing and processing information. It shall include all the hardware or physical parts attached to the computer system, and the software used therewith;
- b. "Computer Science" shall mean the study of the theory behind the applications, structure, and design of a computational system, and the specialization in the theory or computation. It shall include, but not be limited to computational complexity theory, computer graphics, programming language theory, basic HTML design, and other similar computer programming subjects;
- c. "DepEd" shall mean the Department of Education;
- d. "DICT" shall mean the Department of Information and Communications Technology;
- e. "Foundational Computer Programming Skills" shall include, but not be limited to computational thinking, algorithms, looping, conditionals, variables, functions, abstractions, binary coding, sequences, debugging, internet safety, and the like;

- f. "Information and Communication Technology (!CT)" shall mean the totality of electronic means to access, create, collect, store, process, receive, transmit, present and disseminate information, as defined in R.A. 10844, otherwise known as "The Department of Information and Communications Technology Act of 2015;
- g. "K-12 Program" shall mean the enhanced basic education program as defined in R .A. 10533, otherwise known as the "Enhanced Basic Education Act of 2013."

SEC. 4. Mandatory Computer Science Education. – Computer Science Education is hereby integrated into the curriculum of the K-12 Program to include computer science, computer literacy, and information and communication technology as part of the basic subjects offered to students at all levels beginning Kindergarten. The revision must ensure that foundational computer programming skills needed for higher level education are developed in children as soon as practicable.

The K-12 Program shall be further revised to create a Computer Science and Information and Communications Technology (ICT) strand under the Academic Track offered to Senior High School Students. Provided, that the ITC strand currently under the Technology and Livelihood Education (TLE) and Technical-Vocational-Livelihood (TVL) Tracks shall be repositioned and moved to the Academic Track.

SEC. 5. Implementing Rules and Regulations. – The DepEd shall, within ninety (90) days from the approval of this Act, formulate the design and details of computer science subjects and track, and issue the implementing rules and regulations necessary for the enforcement of this Act. It shall work in consultation with the necessary government agencies and other stakeholders including but not limited to, private and public school associations, national student organizations, national teacher organizations, parent-teacher associations and other members of relevant private sectors.

The DepEd shall ensure that the use of computers, or the introduction of the necessary computer and modern technology skills, shall be incorporated in the instruction of all subjects at all levels. The appropriate skills to be developed per grade level must be clearly defined and unified with the curriculum offered under the K-12 Program.

The DepEd shall provide the necessary training for teachers and school administrators for the proper enforcement of this Act. It shall, likewise, provide the schools with the equipment as may be required.

The DepEd shall work with the DICT to ensure the computerization of all government-run schools offering the K-12 Program.

The DICT shall be given five (5) years to provide all the schools nationwide with the necessary computer hardware and software, and to actualize the provisions of this Act.

SEC. 6. Appropriations. – The sums as may be necessary for the effective implementation of this Act shall be provided in the annual General Appropriations Act.

SEC. 7. Academic Freedom and Institutional Autonomy. – Nothing in this Act shall be construed as encroaching upon the academic freedom and institutional autonomy or educational institutions, as provided under the Constitution.

SEC. 8. Separability Clause. – If, for any reason, any part or provision of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain in full force and effect.

SEC. 9. Repealing Clause. – All laws, presidential decrees, executive orders, and rules and regulations contrary to or inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

SEC. 10. Effectivity. – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in two newspapers of general circulation.

Approved,