Virginia Board of Education
Guidelines for the Use of Computer Science Courses to Satisfy Graduation Requirements

Code of Virginia § 22.1-253.13:4

Approved by the Virginia Board of Education
Revised October 14, 2022

Subsection D 14 of § 22.1-253.13:4 of the *Code of Virginia* requires the Board to develop guidelines addressing how computer science courses can satisfy graduation requirements.

Pursuant to the requirements of § 22.1-253.13:4, the following guidelines will be effective for students entering the ninth grade for the first time between the 2015–2016 school year and the 2021–2022 school year:

> *Advanced Placement (AP) Computer Science A* may be considered a mathematics course, a laboratory science course, or career and technical education course under the conditions outlined below. A student may apply *AP Computer Science A* coursework to only one of the aforementioned areas.

> **I.** For **mathematics**, *AP Computer Science A* currently provides a standard credit to satisfy graduation requirements.

> **II.** For **laboratory science**, *AP Computer Science A* may provide a standard credit to satisfy graduation requirements when students successfully complete laboratory science courses from the different science discipline areas in accordance with the *Regulations Establishing Standards for Accrediting Public Schools in Virginia*.*

> For *AP Computer Science A* to be applied as a standard credit for laboratory science, the course must include a significant experimental component where:
> 1. a testable question is developed based on a review of literature;
> 2. an hypothesis drives a sequential experimental design;
> 3. parameters are manipulated under controlled conditions to test how variables behave;
> 4. systematic methods of organizing derived experimental data are employed;
> 5. analysis of data requires statistical processes to form conclusions; and
> 6. conclusions and findings are formally presented, defended, and argued.

> International Baccalaureate (IB) Computer Science coursework may be applied as a laboratory science as part of the recognized IB diploma requirement, which is currently governed under the 2012 SOA regulations.*

> **III**. For **career and technical education,** *AP Computer Science A* may provide a standard credit to satisfy graduation requirements.

> *AP Computer Science A* currently provides a student-selected verified credit for students who (i) successfully complete a career and technical education program sequence in programming or a related programming sequence and (ii) successfully complete either the *AP Computer Science A* examination with a score of three or higher.

Pursuant to the requirements of § 22.1-253.13:4, the following guidelines will be effective for students entering the ninth grade for the first time in the 2022–2023 school year and thereafter:

> *Advanced Placement (AP) Computer Science A* or *International Baccalaureate (IB) Computer*

Science may be considered a mathematics course, a laboratory science course, or a career and technical education course under the conditions outlined below. A student may apply *AP Computer Science A* or *IB Computer Science* coursework to only one of the aforementioned areas.

I. For **mathematics**, *AP Computer Science A* or *IB Computer Science* currently provides a standard credit to satisfy graduation requirements.

II. For **laboratory science**, *AP Computer Science A* or IB Computer Science may provide a standard credit to satisfy graduation requirements when students successfully complete laboratory science courses from the different science discipline areas in accordance with the *Regulations Establishing Standards for Accrediting Public Schools in Virginia*.

For *AP Computer Science A* or *IB Computer Science* to be applied as a standard credit for laboratory science, the course must include a significant experimental component where:
1. a testable question is developed based on a review of literature;
2. an hypothesis drives a sequential experimental design;
3. parameters are manipulated under controlled conditions to test how variables behave;
4. systematic methods of organizing derived experimental data are employed;
5. analysis of data requires statistical processes to form conclusions; and
6. conclusions and findings are formally presented, defended, and argued.

III. For **career and technical education,** *AP Computer Science A* or *IB Computer Science* may provide a standard credit to satisfy graduation requirements.

AP Computer Science A or *IB Computer Science* currently provides a student-selected verified credit for students who (i) successfully complete a career and technical education program sequence in programming or a related programming sequence and (ii) successfully complete either the *AP Computer Science A* examination with a score of three or higher or the IB Computer Science coursework.

Colleges and universities have varying ways of applying computer science course credits during the admission process. Many colleges and universities do not accept computer science as a mathematics or laboratory science course on student transcripts. In all cases, teachers and school counselors must carefully advise students and parents to ensure that their high school credit-bearing course selections and graduation planning career pathways are consistent with admission standards and program requirements for post-secondary education and training.