

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Education

BILL: SB 104

INTRODUCER: Senator Brandes

SUBJECT: Computer Coding Instruction

DATE: February 3, 2017

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Bouck</u>	<u>Graf</u>	<u>ED</u>	<u>Pre-meeting</u>
2.	_____	_____	<u>RC</u>	_____

I. Summary:

SB 104 provides that, beginning in the 2019-2020 school year, high schools may provide opportunities for students to take computer coding courses of sufficient rigor, as identified by the Commissioner of Education (Commissioner), such that two credits in those courses and the earning of a related industry certification satisfies two credits in sequential foreign language instruction. Computer coding courses identified by the Commissioner and the computer coding courses taken to earn the related industry certification must be identified in the Course Code Directory, and may be taken from the Florida Virtual School.

Additionally, the bill requires Florida College System institutions and state universities to recognize the computer coding course credits as foreign language credits.

The bill has no fiscal impact on state funds. The bill may have a minimal fiscal impact on school districts that choose to offer computer coding courses as they shift resources to make such courses available to students.

The bill takes effect July 1, 2017.

II. Present Situation:

Computer Science and Technology Instruction

Public schools are required to provide students in grades K-12 opportunities for learning computer science including, but not limited to, computer coding and computer programming.¹ Such opportunities may include:²

- Instruction regarding computer coding in elementary and middle school;

¹ Section 1007.2616(1), F.S.

² *Id.*

- Instruction to develop computer usage and digital literacy skills in middle school; and
- Courses in computer science, computer coding and computer programming in high school, including opportunities to earn industry certifications related to such courses.

Specifically, high schools are authorized to provide computer science courses to satisfy credit requirements for high school graduation, including, at a minimum, computer science and computer technology courses in 3D rapid prototype printing, which are of which are of sufficient rigor, as identified by the Commissioner of Education.³ Such courses must be identified in the Course Code Directory.⁴

Foreign Language Competency

Each district school board must “provide all courses required for middle grades promotion, high school graduation, and appropriate instruction to ensure that students meet the State Board of Education (state board) adopted standards” in reading and other language arts, mathematics, science, social studies, foreign languages, health and physical education, and the arts.⁵

Students are not required to earn credits in foreign language to graduate from high school with a standard high school diploma.⁶ However, to earn the Scholar designation on the standard high school diploma, a student must earn two credits in the same foreign language.⁷

The Florida Department of Education (DOE or department) is required to identify the competencies that students must demonstrate upon the successful completion of two credits of sequential high school foreign language instruction.⁸ Additionally, the law directs the department to identify in rule⁹ the correlation between high school foreign language competencies and the competencies required of students in the Florida College System (FCS) institutions’ courses.¹⁰ Based on such correlations, each FCS institution must identify the minimum number of postsecondary credits that students must earn to demonstrate a level of competence in foreign language that is equivalent to the competence of students who completed two credits of such instruction in high school.¹¹

³ Section 1007.2616(3), F.S.

⁴ The Course Code Directory (CCD) lists all public preK-12 and postsecondary career and technical education courses that are available for use by school districts. Programs and courses which are funded through the Florida Education Finance Program and courses or programs for which students may earn credit toward high school graduation must be listed in the CCD. The CCD maintains course listings for administration and service assignments, K-12 education, exceptional student education, career and technical education, and adult education, with details regarding appropriate teacher certification levels. The CCD provides course information to schools, districts, and the state. Rule 6A-1.09441, F.A.C.

⁵ Section 1003.42(1), F.S.

⁶ Section 1003.4282(3), F.S.

⁷ Section 1003.4285(1)(a)4., F.S.

⁸ Section 1007.262, F.S.

⁹ Rule 6A-10.02412, F.A.C. This rule adopted by the State Board of Education specifies the competencies that students must demonstrate upon successful completion of two credits of secondary instruction in one foreign language.

¹⁰ Section 1007.262, F.S.

¹¹ *Id.*

The law authorizes alternative means of demonstrating foreign language competence. For instance, the DOE may specify means by which a student whose native language is not English may demonstrate proficiency in the native language.¹² A student who demonstrates proficiency in a native language other than English is exempt from the requirement to complete foreign language courses at the secondary level or FCS level.¹³ The completion of a postsecondary course at the elementary level 2 in one foreign language or American Sign Language (ASL) is also considered to demonstrate the required foreign language competency.¹⁴ Additionally, FCS institutions may determine other means by which students may demonstrate completion of foreign language competencies.¹⁵

A first-time-in-college student who is admitted to a state university is expected to demonstrate competency in foreign language or ASL equivalent to the second high school level or higher (Spanish 2, Haitian Creole 2, etc.).¹⁶ Students may also meet the foreign language requirement for admission into a state university by demonstrating:¹⁷

- Competency at the elementary 2 level in one foreign language or ASL at an undergraduate institution;
- Equivalent foreign language competence on the basis of scores determined by the Credit-by-Exam Equivalencies¹⁸ adopted by the Board of Governors of the State University System of Florida; or
- Equivalent foreign language or ASL competence through other means approved by the university.

III. Effect of Proposed Changes:

SB 104 provides that, beginning in the 2019-2020 school year, high schools must provide opportunities for students to take computer coding courses of sufficient rigor, as identified by the Commissioner of Education (Commissioner), such that two credits in those courses and the earning of a related industry certification satisfies two credits in sequential foreign language instruction. Computer coding courses identified by the Commissioner and the computer coding courses taken to earn the related industry certification must be identified in the Course Code Directory (CCD), and may be taken from the Florida Virtual School (FLVS).

Currently, career and technical education frameworks include courses that incorporate computer coding standards but such courses are not specifically identified in the CCD as courses that contain computer coding standards. Consequently, such courses will need to be identified in the CCD as computer coding and computer programming course options for students to take in lieu of sequential foreign language courses.¹⁹

¹² Section 1007.262, F.S.

¹³ *Id.*

¹⁴ Rule 6A-10.02412, F.A.C.

¹⁵ *Id.*

¹⁶ Board of Governors Regulation 6.002(1)(h).

¹⁷ *Id.*

¹⁸ Florida Department of Education, *Articulation Coordinating Committee Credit-by-Exam Equivalencies*, available at <http://www.fldoe.org/core/fileparse.php/5421/urlt/0078391-acc-cbe.pdf>.

¹⁹ Email, Florida Department of Education (Feb. 1, 2017).

The bill requires FCS institutions and state universities to recognize the computer coding course credits as foreign language credits. Additionally, the bill requires the student and the student's parent to sign a statement acknowledging and accepting that taking a computer coding course as a foreign language may not meet the foreign language requirements of an out-of-state college or university. The acknowledgement, however, does not extend to a student and parent accepting that computer coding course substitutions may not meet the foreign language requirements of private postsecondary education institutions in Florida.

The bill may allow students to apply the identified computer coding course credits to satisfy foreign language requirements for earning:

- A Scholar designation on the standard high school diploma;²⁰
- The Florida Bright Futures Academic Scholars award and the Florida Bright Futures Medallion Scholars award;²¹ and
- An associate in arts degree.²²

Additionally, the bill requires the Florida Department of Education to annually report to the Board of Governors of the State University System of Florida and the Legislature:

- The courses identified in the CCD that meet the academic standards for computer coding; and
- The number of students, by district, including the FLVS, who are enrolled in such computer coding courses.

The bill takes effect July 1, 2017.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

²⁰ Section 1003.4285(1)(a)4., F.S.

²¹ To qualify for the Florida Academic Scholars award or a Florida Medallion Scholars award, a student must complete high school courses that are designated by the State Board of Education as college-preparatory academic courses. Sections 1009.534(1)(a) and 1009.535(1)(a), F.S. The required college-preparatory academic courses include two credits in the same foreign language. Rule 6A-20.028(3)(g)1., F.A.C.; *see also* Florida Board of Governors, Regulation 6.002(1)(h).

²² Beginning with students initially entering a Florida College System institution or state university in 2014-2015 and thereafter, coursework for an associate in arts degree must include demonstration of competency in a foreign language. Section 1007.25(7), F.S.

V. Fiscal Impact Statement:**A. Tax/Fee Issues:**

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

SB 104 has no fiscal impact on state funds. The bill may have a minimal fiscal impact on school districts that choose to offer computer coding courses as they shift resources to make such courses available to students.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 1007.2616 of the Florida Statutes.

IX. Additional Information:**A. Committee Substitute – Statement of Changes:**

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.