

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 Pre-K - 12

BILL: CS/SB 468

INTRODUCER: Education Pre-K - 12 Committee and Senator Ring

SUBJECT: Computer Coding Instruction

DATE: December 4, 2015 REVISED: _____

| | ANALYST | STAFF DIRECTOR | REFERENCE | ACTION |
|----|---------|----------------|-----------|---------------|
| 1. | Graf | Klebacha | ED | Fav/CS |
| 2. | _____ | _____ | AED | _____ |
| 3. | _____ | _____ | AP | _____ |

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 468 adds computer science and technology instruction-related responsibilities for high schools and district school boards, and establishes alternative means to demonstrate foreign language competency. Specifically,

- High schools must provide opportunities for students to substitute two credits in computer coding courses of sufficient rigor, as identified by the Commissioner of Education (commissioner), and a related industry certification for two credits in sequential foreign language instruction. Such computer coding courses, including the courses taken to earn the related industry certification, must be identified in the Course Code Directory.
- Each district school board must develop a plan for offering a computer coding curriculum, which must be submitted to the commissioner, President of the Senate, and Speaker of the House of Representatives by January 1, 2017.

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

The bill takes effect July 1, 2016.

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,
- 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 sufficient rigor, as identified by the Commissioner of Education.³ Such courses must be identified in the Course Code Directory (CCD).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 2 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

¹ Section 1007.2616(1), F.S.

² Section 1007.2616(1), F.S.

³ Section 1007.2616(3), F.S.

⁴ The Course Code Directory (CCD) is the listing of all public preK-12 courses 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 for 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.

competencies required of students in the Florida College System (FCS) institutions' courses.¹⁰ Based on such correlation, 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

The law authorizes alternative means of demonstrating foreign language competence in that, 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.¹⁶ Students may meet the foreign language admission requirement 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:

CS/SB 468 adds computer science and technology instruction-related responsibilities for high schools and district school boards, and establishes alternative means to demonstrate foreign language competency. Specifically,

- High schools must provide opportunities for students to substitute two credits in computer coding courses of sufficient rigor, as identified by the Commissioner of Education (commissioner), and a related industry certification for two credits in sequential foreign language instruction. Such computer coding courses, including the courses taken to earn the related industry certification, must be identified in the Course Code Directory (CCD).

¹⁰ *Id.*

¹¹ *Id.*

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>.

- Each district school board must develop a plan for offering a computer coding curriculum, which must be submitted to the commissioner, President of the Senate, and Speaker of the House of Representatives by January 1, 2017.

The computer coding curriculum and course substitutions will likely promote computer science and technology instruction in high schools which may redirect student interest into computer science.

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

The bill requires Florida College System institutions and state universities to recognize the computer coding course credits as foreign language credits. This requirement will assist students who complete two credits in rigorous computer coding courses meet the sequential foreign language competency requirements at Florida College System institutions and state universities.

The bill takes effect July 1, 2016.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

¹⁹ Florida Department of Education, *2016 Agency Legislative Bill Analysis for SB 468* (Nov. 5, 2015), at 3-4, on file with the Committee on Education staff.

C. Government Sector Impact:

None.

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

CS by Education Pre-K – 12 Committee on December 3, 2015:

The committee substitute:

- Added a requirement that Florida College System institutions and state universities must recognize the computer coding course credits as foreign language credits; and
- Removed a provision that would have required students to earn two credits in rigorous computer coding courses to qualify for the Florida Bright Futures Scholarship Program initial award.

B. Amendments:

None.