

BILL ANALYSIS

Senate Research Center
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C.S.S.B. 1620
By: Duncan
Education
4/12/2011
Committee Report (Substituted)

AUTHOR'S / SPONSOR'S STATEMENT OF INTENT

C.S.S.B. 1620 authorizes an applied science, technology, engineering, or mathematics (STEM) course to be reviewed and approved for purposes of satisfying the mathematics and science curriculum requirements for the recommended and advanced high school programs.

The bill will provide consistency throughout the state in allowing career and technology education courses to count as fourth year applied mathematics and science courses.

As a result of this bill, more students will be prepared for employment in a career identified by the Texas Workforce Commission as a high-demand or emerging career field.

C.S.S.B. 1620 amends current law relating to substitution of certain career and technology courses for certain mathematics and science courses otherwise required under the recommended high school program.

RULEMAKING AUTHORITY

Rulemaking authority previously granted to the State Board of Education is modified in SECTION 3 (Section 28.025, Education Code) of this bill.

SECTION BY SECTION ANALYSIS

SECTION 1. Amends Section 21.044, Education Code, as follows:

Sec. 21.044. EDUCATOR PREPARATION. (a) Creates this subsection from existing text. Makes no further changes to this subsection.

(b) Requires the State Board for Educator Certification, in proposing rules under this section, to specify that to obtain a certificate to teach an "applied STEM course," as that term is defined by Section 28.027, as a secondary school, a person is required to:

(1) pass the certification test administered by the recognized national or international business and industry group that created the curriculum the applied an applied science, technology, engineering, or mathematics (STEM) course is based on; and

(2) have at a minimum an associate degree from an accredited institution of higher education, and three years of work experience in an occupation for which the applied STEM course is intended to prepare the student.

SECTION 2. Amends Subchapter B, Chapter 28, Education Code, by adding Section 28.027, as follows:

Sec. 28.027. APPLIED SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS COURSES. (a) Defines "applied STEM course," in this section.

(b) Requires the State Board of Education (SBOE) to establish a process under which a STEM course may be reviewed and approved for purposes of satisfying the mathematics and science curriculum requirements for the recommended high school program imposed under Section 28.025(b-1)(1)(A) (relating to certain curriculum requirements regarding the social studies requirement) through substitution of the applied STEM course for a specific mathematics or science course otherwise required under the recommended high school program and completed during the student's fourth year of mathematics or science course work.

(c) Requires that the process provide that an applied STEM course is entitled to be approved for the purpose described by Subsection (b) if the course meets the following requirements:

(1) the applied STEM course is part of a curriculum created by a recognized national or international business and industry group to prepare a student for a national or international business and industry certification or license;

(2) the applied STEM course qualifies as:

(A) a dual credit course; or

(B) an articulated postsecondary course provided for local credit or articulated postsecondary advanced technical credit course provided for state credit;

(3) the essential knowledge and skills covered in the applied STEM course are equivalent to the essential knowledge and skills covered in the mathematics or science course for which the applied STEM course is proposed to be approved for substitution; and

(4) the applied STEM course:

(A) provides substantial mathematics content or science content, as applicable, taught in an applied or symbolic format, that enables a student to develop relevant critical thinking skills necessary for preparation for employment or additional training in a career identified by the Texas Workforce Commission as a high-demand or emerging occupation; and

(B) incorporates college and career readiness skills.

(d) Provides that if an applied STEM course approved under this section is part of a coherent sequence of career and technology courses, a student is eligible to enroll in the applied STEM course for the purpose described in Subsection (b) only if the student has completed the prerequisite course work, if any, for the applied STEM course.

(e) Requires a student who enrolls in an applied STEM course approved under this section as a substitute for a course for which an end-of-course assessment instrument is adopted under Section 39.023(c) (relating to end-of-course assessment instruments for certain courses), notwithstanding Section 39.023(c) or 39.025 (Secondary-Level Performance Required), to be assessed using the assessment instrument developed for the applied STEM course by the recognized national or international business and industry group that created the applied STEM course curriculum. Requires that the calculation of the student's performance on the assessment instrument comply with all applicable rules.

SECTION 3. Amends Section 28.025(b-2), Education Code, as follows:

(b-2) Requires SBOE, in adopting rules under Subsection (b-1) (relating to the curriculum requirements for high school programs), to allow a student to comply with the curriculum requirements for a mathematics or science course under Subsection (b-1)(1) (relating to the curriculum requirements for recommended and advanced high school programs), rather than a mathematics course under Subsection (b-1)(1) taken after the successful completion of an Algebra II course or science course under Subsection (b-1)(1) taken after the successful completion of a physics course, by successfully completing an advanced career and technical course designated by SBOE as containing substantively similar and rigorous academic content. Prohibits the rules from requiring Algebra II as a prerequisite for an applied STEM course that is permitted to be substituted for a mathematics course under Section 28.027 or a physics course as a prerequisite for an applied STEM course that is permitted to be substituted for a science course under Section 28.027. Deletes existing text authorizing a student to use the option provided by this subsection for not more than two courses.

SECTION 4. Amends Subchapter C, Chapter 61, Education Code, by adding Section 61.0517, as follows:

Sec. 61.0517. APPLIED STEM COURSES. (a) Defines "applied STEM course" in this section.

(b) Requires the Texas Higher Education Coordinating Board (THECB) to ensure that academic credit for an applied STEM course is freely transferable among all institutions of higher education in this state.

(c) Requires THECB to include applied STEM courses in SBOE's listing of courses approved for offer by a public junior college or public technical institute.

SECTION 5. Requires the commissioner of education, not later than September 1, 2012, to establish and implement the process required by Section 28.027, Education Code, as added by this Act.

SECTION 6. Effective date: upon passage or September 1, 2011.