

1-1 By: Duncan S.B. No. 1620
1-2 (In the Senate - Filed March 11, 2011; March 23, 2011, read
1-3 first time and referred to Committee on Education; April 13, 2011,
1-4 reported adversely, with favorable Committee Substitute by the
1-5 following vote: Yeas 8, Nays 0; April 13, 2011, sent to printer.)

1-6 COMMITTEE SUBSTITUTE FOR S.B. No. 1620 By: Patrick

1-7 A BILL TO BE ENTITLED
1-8 AN ACT

1-9 relating to substitution of certain career and technology courses
1-10 for certain mathematics and science courses otherwise required
1-11 under the recommended high school program.

1-12 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

1-13 SECTION 1. Section 21.044, Education Code, is amended to
1-14 read as follows:

1-15 Sec. 21.044. EDUCATOR PREPARATION. (a) The board shall
1-16 propose rules establishing the training requirements a person must
1-17 accomplish to obtain a certificate, enter an internship, or enter
1-18 an induction-year program. The board shall specify the minimum
1-19 academic qualifications required for a certificate.

1-20 (b) In proposing rules under this section, the board shall
1-21 specify that to obtain a certificate to teach an "applied STEM
1-22 course," as that term is defined by Section 28.027, at a secondary
1-23 school, a person must:

1-24 (1) pass the certification test administered by the
1-25 recognized national or international business and industry group
1-26 that created the curriculum the applied STEM course is based on; and

1-27 (2) have at a minimum:
1-28 (A) an associate degree from an accredited
1-29 institution of higher education; and

1-30 (B) three years of work experience in an
1-31 occupation for which the applied STEM course is intended to prepare
1-32 the student.

1-33 SECTION 2. Subchapter B, Chapter 28, Education Code, is
1-34 amended by adding Section 28.027 to read as follows:

1-35 Sec. 28.027. APPLIED SCIENCE, TECHNOLOGY, ENGINEERING, AND
1-36 MATHEMATICS COURSES. (a) In this section, "applied STEM course"
1-37 means an applied science, technology, engineering, or mathematics
1-38 course offered as part of a school district's career and technology
1-39 education curriculum.

1-40 (b) The State Board of Education shall establish a process
1-41 under which an applied STEM course may be reviewed and approved for
1-42 purposes of satisfying the mathematics and science curriculum
1-43 requirements for the recommended high school program imposed under
1-44 Section 28.025(b-1)(1)(A) through substitution of the applied STEM
1-45 course for a specific mathematics or science course otherwise
1-46 required under the recommended high school program and completed
1-47 during the student's fourth year of mathematics or science course
1-48 work.

1-49 (c) The process must provide that an applied STEM course is
1-50 entitled to be approved for the purpose described by Subsection (b)
1-51 if the course meets the following requirements:

1-52 (1) the applied STEM course is part of a curriculum
1-53 created by a recognized national or international business and
1-54 industry group to prepare a student for a national or international
1-55 business and industry certification or license;

1-56 (2) the applied STEM course qualifies as:
1-57 (A) a dual credit course; or
1-58 (B) an articulated postsecondary course provided
1-59 for local credit or articulated postsecondary advanced technical
1-60 credit course provided for state credit;

1-61 (3) the essential knowledge and skills covered in the
1-62 applied STEM course are equivalent to the essential knowledge and
1-63 skills covered in the mathematics or science course for which the

2-1 applied STEM course is proposed to be approved for substitution;
2-2 and

2-3 (4) the applied STEM course:

2-4 (A) provides substantial mathematics content or
2-5 science content, as applicable, taught in an applied or symbolic
2-6 format, that enables a student to develop relevant critical
2-7 thinking skills necessary for preparation for employment or
2-8 additional training in a career identified by the Texas Workforce
2-9 Commission as a high-demand or emerging occupation; and

2-10 (B) incorporates college and career readiness
2-11 skills.

2-12 (d) If an applied STEM course approved under this section is
2-13 part of a coherent sequence of career and technology courses, a
2-14 student is eligible to enroll in the applied STEM course for the
2-15 purpose described in Subsection (b) only if the student has
2-16 completed the prerequisite course work, if any, for the applied
2-17 STEM course.

2-18 (e) Notwithstanding Section 39.023(c) or 39.025, a student
2-19 who enrolls in an applied STEM course approved under this section as
2-20 a substitute for a course for which an end-of-course assessment
2-21 instrument is adopted under Section 39.023(c) shall be assessed
2-22 using the assessment instrument developed for the applied STEM
2-23 course by the recognized national or international business and
2-24 industry group that created the applied STEM course curriculum.
2-25 The calculation of the student's performance on the assessment
2-26 instrument must comply with all applicable rules.

2-27 SECTION 3. Subsection (b-2), Section 28.025, Education
2-28 Code, is amended to read as follows:

2-29 (b-2) In adopting rules under Subsection (b-1), the State
2-30 Board of Education shall allow a student to comply with the
2-31 curriculum requirements for a mathematics [course under Subsection
2-32 (b-1)(1) taken after the successful completion of an Algebra II
2-33 course] or science course under Subsection (b-1)(1) [taken after
2-34 the successful completion of a physics course] by successfully
2-35 completing an advanced career and technical course designated by
2-36 the State Board of Education as containing substantively similar
2-37 and rigorous academic content. The rules may not require Algebra II
2-38 as a prerequisite for an applied STEM course that is permitted to be
2-39 substituted for a mathematics course under Section 28.027 or a
2-40 physics course as a prerequisite for an applied STEM course that is
2-41 permitted to be substituted for a science course under Section
2-42 28.027 [A student may use the option provided by this subsection for
2-43 not more than two courses].

2-44 SECTION 4. Subchapter C, Chapter 61, Education Code, is
2-45 amended by adding Section 61.0517 to read as follows:

2-46 Sec. 61.0517. APPLIED STEM COURSES. (a) In this section,
2-47 "applied STEM course" means an applied science, technology,
2-48 engineering, or mathematics course offered as part of a school
2-49 district's career and technology education curriculum and
2-50 approved, as provided by Section 28.027, by the State Board of
2-51 Education for purposes of satisfying the mathematics and science
2-52 curriculum requirements for the recommended high school program
2-53 imposed under Section 28.025(b-1)(1)(A).

2-54 (b) The board shall ensure that academic credit for an
2-55 applied STEM course is freely transferable among all institutions
2-56 of higher education in this state.

2-57 (c) The board shall include applied STEM courses in the
2-58 board's listing of courses approved for offer by a public junior
2-59 college or public technical institute.

2-60 SECTION 5. Not later than September 1, 2012, the
2-61 commissioner of education shall establish and implement the process
2-62 required by Section 28.027, Education Code, as added by this Act.

2-63 SECTION 6. This Act takes effect immediately if it receives
2-64 a vote of two-thirds of all the members elected to each house, as
2-65 provided by Section 39, Article III, Texas Constitution. If this
2-66 Act does not receive the vote necessary for immediate effect, this
2-67 Act takes effect September 1, 2011.

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