

BILL ANALYSIS

S.B. 1620
By: Duncan
Public Education
Committee Report (Unamended)

BACKGROUND AND PURPOSE

Interested parties contend that there is a lack of consistency with regard to allowing certain career and technology courses to be substituted for certain mathematics and science courses otherwise required under the recommended high school program. S.B. 1620 seeks to provide for that consistency.

RULEMAKING AUTHORITY

It is the committee's opinion that rulemaking authority is expressly granted to the State Board for Educator Certification in SECTION 1 and to the State Board of Education in SECTION 3 of this bill.

ANALYSIS

S.B. 1620 amends the Education Code to require the State Board of Education (SBOE) to establish a process under which an applied science, technology, engineering, or mathematics (STEM) course may be reviewed and approved for purposes of satisfying the mathematics and science curriculum requirements for the recommended high school program 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. The bill requires the process to provide that an applied STEM course is entitled to be approved for the purpose of satisfying curriculum requirements if the course meets the following requirements:

- 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;
- the applied STEM course qualifies as a dual credit course or an articulated postsecondary course provided for local credit or articulated postsecondary advanced technical credit course provided for state credit;
- 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
- the applied STEM course incorporates college and career readiness skills and 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.

S.B. 1620 makes a student eligible to enroll in an approved applied STEM course that is part of a coherent sequence of career and technology courses for the purpose of satisfying curriculum requirements only if the student has completed the prerequisite course work, if any, for the applied STEM course. The bill requires that a student who enrolls in an approved applied STEM

course as a substitute for a course for which an end-of-course test is adopted be assessed using the test developed for the applied STEM course by the recognized national or international business and industry group that created that applied STEM course curriculum. The bill requires the calculation of the student's performance on the test to comply with all applicable rules.

S.B. 1620 requires the State Board for Educator Certification, in proposing rules relating to educator preparation, to specify that to obtain a certificate to teach an applied STEM course at a secondary school a person must pass the certification test administered by the recognized national or international business and industry group that created the curriculum the applied STEM course is based on and must 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.

S.B. 1620 prohibits the rules adopted by the SBOE regarding the curriculum requirements for the recommended and advanced high school programs from requiring Algebra II as a prerequisite for an applied STEM course that is permitted to be substituted for a mathematics course or from requiring a physics course as a prerequisite for an applied STEM course that is permitted to be substituted for a science course. The bill removes the specification that for a student to be allowed to comply with the curriculum requirements for a mathematics or science course by successfully completing an advanced career and technology course, the student must first successfully complete an Algebra II course or a physics course and removes a provision limiting a student's ability to use this option to not more than two courses.

S.B. 1620 requires the Texas Higher Education Coordinating Board to ensure that academic credit for an applied STEM course is freely transferable among all institutions of higher education in Texas and to include applied STEM courses in the coordinating board's listing of courses approved for offer by a public junior college or public technical institute.

S.B. 1620 requires the commissioner of education, not later than September 1, 2012, to establish and implement the process under which a STEM course may be approved for purposes of satisfying curriculum requirements under the bill's provisions. The bill defines "applied STEM course."

EFFECTIVE DATE

On passage, or, if the bill does not receive the necessary vote, September 1, 2011.