

## **BILL ANALYSIS**

Senate Research Center  
82R6596 GCB-F

S.B. 1620  
By: Duncan  
Education  
4/5/2011  
As Filed

### **AUTHOR'S / SPONSOR'S STATEMENT OF INTENT**

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.

As proposed, S.B. 1620 amends current law relating to an approval process for substitution of certain career and technology courses for mathematics and science courses otherwise required under the recommended and advanced high school programs.

### **RULEMAKING AUTHORITY**

Rulemaking authority previously granted to the State Board of Education is modified in SECTION 2 (Section 28.025, Education Code) of this bill.

### **SECTION BY SECTION ANALYSIS**

SECTION 1. 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 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 and advanced high school programs imposed under Section 28.025(b-1)(1)(A) through substitution of the applied STEM course for a specific mathematics or science course otherwise required under those programs.

(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) an international baccalaureate, advanced placement, or 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) if the applied STEM course is proposed for substitution for a mathematics or science course typically taken by a student in the student's fourth year of high school, the applied STEM course is required to:

(A) provide 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) incorporate college and career readiness skills.

SECTION 2. 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. Deletes existing text authorizing a student to use the option provided by this subsection for not more than two courses.

SECTION 3. 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 4. Effective date: upon passage or September 1, 2011.