

By: Zaffirini

S.B. No. 1249

A BILL TO BE ENTITLED

1 AN ACT  
2 relating to the creation of a pilot program to improve curricula  
3 alignment between junior colleges and general academic teaching  
4 institutions for engineering degree programs.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

6 SECTION 1. Section 61.821, Education Code, is amended by  
7 amending Subdivision (1) and adding Subdivision (4) to read as  
8 follows:

9 (1) "Core curriculum" means the curriculum in liberal  
10 arts, humanities, and sciences and political, social, and cultural  
11 history that all undergraduate students of an institution of higher  
12 education are required to complete before receiving a bachelor's  
13 ~~[an academic undergraduate]~~ degree.

14 (4) "Statewide articulated transfer curricula" means,  
15 with respect to engineering disciplines, sets of courses, up to the  
16 level of an associate's degree, that will satisfy the  
17 lower-division requirements for bachelor's degrees in specific  
18 engineering disciplines, including biomedical, chemical, civil,  
19 computer, electrical, environmental, industrial, mechanical,  
20 nuclear, and petroleum engineering at a general academic teaching  
21 institution.

22 SECTION 2. Subsection (b), Section 61.822, Education Code,  
23 is amended to read as follows:

24 (b) Each institution of higher education shall adopt a core

1 curriculum of no less than 42 semester credit hours, including  
2 specific courses comprising the curriculum. The core curriculum  
3 shall be consistent with the common course numbering system  
4 approved by the board and with the statement, recommendations, and  
5 rules issued by the board. The minimum core curriculum requirement  
6 for all academic associate's degrees shall be 42 semester credit  
7 hours, except for programs designated under board-approved field of  
8 study curricula or statewide articulated transfer curricula. An  
9 institution may have a core curriculum of other than 42 semester  
10 credit hours only if approved by the board.

11 SECTION 3. Subchapter S, Chapter 61, Education Code, is  
12 amended by adding Section 61.833 to read as follows:

13 Sec. 61.833. STATEWIDE ARTICULATED TRANSFER CURRICULA FOR  
14 ENGINEERING DISCIPLINES; PILOT PROGRAM. (a) The board shall  
15 establish a pilot program to develop and assess methods to increase  
16 the number of students earning a baccalaureate degree in  
17 engineering. The program shall:

18 (1) develop levels of academic attainment, including,  
19 if feasible, standard associate's degrees:

20 (A) for specific engineering disciplines,  
21 including biomedical, chemical, civil, computer, electrical,  
22 environmental, industrial, mechanical, nuclear, and petroleum  
23 engineering; or

24 (B) that provide a foundation in any engineering  
25 discipline;

26 (2) develop a well-defined process for transitioning  
27 students who earn an associate's degree or other level of academic

1 attainment in an engineering discipline into an accredited  
2 engineering degree program at a four-year institution; and

3 (3) establish methods to provide orientation and  
4 advising to support students in choosing an engineering discipline  
5 and in completing a baccalaureate degree in engineering.

6 (b) Not later than January 1, 2011, the board, with the  
7 assistance of advisory committees equitably composed of  
8 representatives of institutions of higher education, shall develop  
9 statewide articulated transfer curricula for the purpose of  
10 developing levels of academic attainment, including, if feasible,  
11 standard associate's degrees, for engineering disciplines. Each  
12 university system or independent institution of higher education  
13 that offers a degree program for which a statewide articulated  
14 transfer curriculum is proposed may nominate an individual to  
15 participate on the advisory committee for that particular  
16 engineering curriculum.

17 (c) The statewide articulated transfer curricula shall:

18 (1) have the same rigor and content as the equivalent  
19 course work at an engineering program accredited by ABET,  
20 Incorporated, that is offered at a general academic teaching  
21 institution;

22 (2) minimize the time and course work required to  
23 complete a baccalaureate degree in engineering; and

24 (3) be consistent with:

25 (A) the common course numbering system approved  
26 by the board; and

27 (B) the recommendations and rules of the board.

1       (d) Each institution of higher education that offers an  
2 undergraduate degree program in an engineering discipline may  
3 participate in the pilot program by adopting the statewide  
4 articulated transfer curriculum for that discipline.

5       (e) A student who meets institutional and engineering  
6 degree program admission requirements and successfully completes  
7 the statewide articulated transfer curriculum for an engineering  
8 discipline developed by the board under the pilot program:

9           (1) may transfer the credit hours earned under that  
10 curriculum and apply those credit hours to a participating  
11 four-year institution's engineering degree program in a discipline  
12 for which the curriculum was developed; and

13           (2) shall receive full academic credit toward that  
14 engineering degree program for the credit hours transferred.

15       (f) A student who meets institutional and degree program  
16 admission requirements and who transfers from one institution of  
17 higher education to another without completing the statewide  
18 articulated transfer curriculum developed by the board for that  
19 engineering discipline shall receive full academic credit from a  
20 participating institution for each of the courses that the student  
21 has successfully completed in the statewide articulated transfer  
22 curriculum. Following receipt of credit for each of those courses,  
23 the student shall be required to satisfy any additional course  
24 requirements in the degree program of the receiving institution.

25       (g) The board, with the assistance of advisory committees  
26 established under this section, shall periodically evaluate  
27 whether the statewide articulated transfer curricula for

1 engineering disciplines:

2 (1) effectively facilitate the transition of junior  
3 college students and students of other two-year institutions of  
4 higher education into accredited four-year engineering degree  
5 programs; and

6 (2) have contributed to increasing the number of  
7 transfer students who successfully complete baccalaureate degree  
8 programs in engineering.

9 (h) Not later than January 1, 2011, the board shall report  
10 to the legislature regarding the board's progress in developing and  
11 evaluating statewide articulated transfer curricula for  
12 engineering disciplines required by this section.

13 (i) This section expires January 1, 2017.

14 SECTION 4. This Act does not make an appropriation. A  
15 provision in this Act that creates a new governmental program,  
16 creates a new entitlement, or imposes a new duty on a governmental  
17 entity is not mandatory during a fiscal period for which the  
18 legislature has not made a specific appropriation to implement the  
19 provision.

20 SECTION 5. This Act takes effect immediately if it receives  
21 a vote of two-thirds of all the members elected to each house, as  
22 provided by Section 39, Article III, Texas Constitution. If this  
23 Act does not receive the vote necessary for immediate effect, this  
24 Act takes effect September 1, 2009.