

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 takes effect immediately if it receives
15 a vote of two-thirds of all the members elected to each house, as
16 provided by Section 39, Article III, Texas Constitution. If this
17 Act does not receive the vote necessary for immediate effect, this
18 Act takes effect September 1, 2009.