AGENDA ITEM VI-E

Consideration of adopting the Negotiated Rulemaking Committee's recommendation relating to amendments to Chapter 4, Subchapter C, Sections 4.53, 4.54, 4.58, and 4.59 of Board rules, concerning Texas Success Initiative to reflect developmental education reform efforts.

RECOMMENDATION: Approval

Background Information:

As part of developmental education reform efforts in Texas that focus on improving the acceleration and success of students not meeting college readiness standards in mathematics, institutions of higher education have implemented various mathematics pathway models that tailor remediation efforts to students' mathematics course requirements in their chosen major and career path. Because mathematics pathway models target remediation on identified weaknesses and appropriate preparation for the required college-level course, either Algebra intensive or non-Algebra intensive, students are able to accelerate completion of their mathematics requirements. Programs of this type currently operational in Texas include the New Mathways Project (led by the Charles A. Dana Center and the Texas Association of Community Colleges), modular instruction, and Emporium models. Current rules regarding developmental education and the single definition of college readiness create obstacles for the seamless implementation of mathematics pathway models, inhibiting transfer and the ability of institutions of higher education to appropriately and efficiently prepare students for successful completion of mathematics requirements.

The proposed amendments would allow institutions offering such mathematics pathway models to specify the determination of college readiness to reflect whether a student was meeting requirements for either Algebra-intensive coursework or non-Algebra intensive coursework. Providing for this distinction in rule also enables common definitions and clear communications among institutions of higher education regarding the readiness of transferring students.

Under current rule, if a student were to complete remediation for a non-Algebra intensive course of study and subsequently chose a different major or course of study requiring an Algebra intensive course, an institution of higher education would be prohibited from requiring additional remediation. The proposed amendments would allow institutions of higher education to require additional preparation under such circumstances, if needed. The amendments would also require that students enrolled in mathematics pathway models be clearly informed of the consequences of changing certain degree plan pathways.

The amendments related to the Texas Education Code (TEC), Section 51.3062 Success Initiative are proposed by the Negotiated Rulemaking Committee on Texas Success Initiative, which convened on April 2, 2014. The committee was comprised of representatives from community and technical colleges and universities and from the Dana Center and the Texas

Association of Community Colleges, who developed and unanimously approved the rules and the responses to the comments received through the *Texas Register*.

Agenda Item VI-D likewise proposes to amend Chapter 4, Subchapter C, Success Initiative, Section 4.54 Exemptions, Exceptions, and Waivers; the amendment detailed in VI-D was developed by a separate committee and in response to issues distinct from those of the mathematics pathway models described here.

The amendment to Chapter 4, Subchapter C, Texas Success Initiative (TSI), Section 4.53, would provide institutions of higher education with a uniform definition for mathematics pathway models.

In Section 4.54, language is added to allow institutions the option to require additional mathematics preparation when students change from a non-Algebra intensive to an Algebra intensive pathway.

The amendment to Section 4.58 would further stipulate that the Plan for Academic Success clearly explain the consequences of enrollment in a mathematics pathway model.

The amendment to Section 4.59 would qualify readiness in mathematics as to whether a student were meeting readiness for any entry-level freshman mathematics course or rather only for non-Algebra intensive courses.

Date approved by the Commissioner for publication in the *Texas Register*: May 5, 2014

Date published in the Texas Register: May 16, 2014

The 30-day comment period with the *Texas Register* ended on June 16, 2014.

Summary of comments received:

Comment: The suggested revision from Brian Gottardy, Texas School Alliance (TSA), was to consider the following: students who are unable to successfully complete MATH 1332/1342/1442 should have the opportunity, if their academic plans change and they wish to take Algebra intensive courses, to enroll in those courses without additional delay caused by non-credit- bearing “preparatory” coursework. It seems more appropriate to allow students to move on with a concurrent intervention.

Response: The Committee maintains that the proposed rule changes do allow for a concurrent intervention as suggested in the TSA proposed solution and do not preclude an institution from requiring such a concurrent intervention. Holistic advising (TAC, Section 4.55) allows an institution to use multiple factors, including consideration of prior academic coursework, when assessing and placing students. Ultimately, it is the responsibility of the institution of higher education to determine the intervention that best suits each student’s particular needs and academic goals.

There were no additional changes made as a result of this comment.

Comment: The comment from Constance Elko, Austin Community College, expressed concerns regarding the proposed amendment to TAC, Section 4.59 (d):

"My concern is that two levels of TSI complete for math will make the system quite cumbersome to keep accurate. Every time a student changes their major they may change their TSI status. Students would easily go from being TSI complete to being not TSI complete. That is very difficult to explain to a student.

I thought that part of the intention of the new TSIA was to have a single standard. It would be much easier to administrate and explain TSI rules to students if there was a single standard for being TSI complete the minimum TSIA score of 350, but that colleges could set a higher standard for getting into College Algebra MATH 1314/1414 or Finite Mathematics MATH 1324. Texas had done this when TASP was first used - 230 was complete but a 270 was needed for College Algebra.

One of the major strengths of Pathways such as Statway or the New Mathways Project StatPath is that the student has to complete the developmental and the credit course to be TSI complete in math. That means that the students plan to complete the credit course. One of the main issues colleges have is that many students who become TSI complete just do not take the math credit course. Many more students would complete the math credit requirement successfully if we could just get them to take the credit course as soon as they complete the developmental. Building Pathways that does this is really in the best interest of students. If we allow these Pathways to make the student TSI complete before they take the credit course, we will face the same situation of delay, forgetting and then being unsuccessful in the math credit course."

Response: Austin Community College, as well as many other colleges and universities, are currently using the strategy of conferring college readiness after students successfully complete the college level course in the pathway. The purpose of this proposed amendment to TAC, Section 4.59, is to give institutions the opportunity to choose an alternative strategy that best addresses the needs of their students, but not to mandate any particular strategy. The amendment to TAC, Section 4.58, ensures that institutions clearly inform students of the consequences of selecting a specific mathematic pathway model. The Negotiated Rulemaking Committee on Texas Success Initiative (TSI) recommended unanimously that institutions be given the flexibility to designate two separate college readiness indicators for mathematics based on holistic advising protocols that include considerations for students' chosen career paths. However, institutions are not required to have separate college ready indicators for mathematics. It is the sole discretion of the institution to continue conferring TSI status as it currently does. Colleges, with feedback from their faculty, should make these decisions. Requiring students to enroll

in the college-credit course immediately after successful completion of the developmental course or intervention remains an institutional decision.

There were no additional changes made as a result of this comment.

Comment: The comment from Nancy Long, Trinity Valley Community College, expressed concerns regarding college readiness for students enrolled in mathematics pathways:

"(1) College Algebra was never designed to ready students for Calculus. STEM students should have already completed four years of high school mathematics – including two years of algebra, one year of geometry, and one year of pre-calculus (including at least one-half year of trigonometry). Most STEM students should already have had high school calculus or AP Calculus or college level Calculus concurrent with their high school curriculum.

There are students who decide later to pursue a field of study involving STEM courses, and they do typically begin with College Algebra, but it is not designed for STEM students. It is designed to cover general education skills required to make a student competent in mathematics. As with all general education requirements, some find it difficult to study topics that are not immediately obvious to them as being relevant to their field. These topics are nevertheless relevant to being a well- rounded, educated individual capable of handling formulas, calculations, logical inferences, and of being able to communicate about those topics. College Algebra is not intended for STEM majors. STEM majors who start with College Algebra are far behind and will certainly need more than 120 semester hours of college level coursework to complete their degrees.

(2) Allowing colleges to mark students TSI Math Complete for Non- Algebraic Intensive Studies will provide a path of least resistance for students who I believe should become minimally proficient in algebra. My Registrar has already indicated that once a student is TSI Complete in Math, no course will be blocked for them. Since colleges would have to implement more rules and courses, that they are not required to implement, they won't do so. We'll be back to trying to teach students who have never learned basic algebraic methods. By the way, they need the logical skills and approaches included in College Algebra in other completely separate fields. They need to learn to approach a non-algebra problem by identifying the problem, choosing an approach, recalling the rules of the situation, dividing the problem into parts that can be tackled independently or sequentially, writing out their solution in step-by-step sequential fashion, and draw a logical conclusion and support the reasons for it.

(3) Trying to teach Contemporary Mathematics or Statistics without the student being able to solve quadratic equations, radical equations, and logarithmic equations eliminates most applications, empirical and quantitative reasoning, and critical thinking from those courses. Since algebra is the language of

mathematics, it also eliminates the communication CORE Objective from these courses.

Response: The Committee maintains that it is the decision of the institution to determine whether or not it offers a mathematics pathway model that considers the students' degree plan and career options when recommending courses and interventions for students not college ready in mathematics. If an institution believes that a pathway model for mathematics is not in the best interest of its students, then the institution can continue to provide the options it currently offers for its students. The proposed amendment to the rules does not require an institution to make any changes to its current programs. The purpose of these rule changes is to give institutions the opportunity to choose an alternative strategy if that makes sense for their students, but not to mandate which strategy they select."

There were no additional changes made as a result of this comment.

Included in the recommendations, we received five comments in support of mathematics pathway models and the amendments to the rules that allow the institution to classify students as having met TSI requirements based on their chosen pathway. (Mike Turpin, Kilgore College; Aaron Graczyk, Brazosport College; Ed McCraw, Paris Junior College; Bradly Johnson, Northeast Texas Community College; and Barbara Buchanan, Paris Junior College)

Legal Review:

Approved by the Office of General Counsel _____ Date:_____

CHAPTER 4. RULES APPLYING TO ALL PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN TEXAS
SUBCHAPTER C. TEXAS SUCCESS INITIATIVE

Section

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4.62 Required Components of Developmental Education Programs

§4.53 Definitions.

(1) – (13) No Change

(14) Mathematics Pathway Models—Developmental and basic academic skills coursework/interventions that prepare students for academic/workforce training programs and careers.

~~(14)~~ (15) Measureable Learning Outcomes--Knowledge, skills, and abilities, and/or attitudes that students should be able to demonstrate upon completion of a course and/or intervention.

~~(15)~~ (16) Minimum Passing Standards--The minimum scores which must be attained by a student in reading, writing, and mathematics in the TSI Assessment Instrument that indicates the student's readiness to enroll in entry-level freshman courses as defined in paragraph (12) of this section. These scores are set forth in §4.57 of this title.

~~(16)~~ (17) Non-Course Competency-Based Developmental Education Interventions (also known as Non-Semester-Length Interventions or NCBO)--Interventions that use learning approaches designed to address a student's identified weaknesses and effectively and efficiently prepare the student for college-level work. These interventions must be overseen by an instructor of record, must not fit traditional course frameworks, and cannot include advising or learning support activities already connected to a traditional course; interventions may include, but are not limited to, tutoring, supplemental instruction, or labs.

~~(17)~~ (18) Non-Degree Credit Course--A course which may not be counted toward a degree or certificate. The term includes developmental education, pre-collegiate, and general continuing education courses.

~~(18)~~ (19) Professional Development--The provision of ongoing and systematic learning opportunities for developmental educators and support staff that focus on research-based strategies, methodologies, and best practices resulting in effective and efficient coursework and/or interventions advancing the cognitive and non-cognitive skills of underprepared students seeking post-secondary enrichment, certificates, and degrees.

~~(19)~~ (20) Program Evaluation--A systematic method of collecting, analyzing, and using information to answer questions about developmental education courses, interventions, and policies, particularly about their effectiveness and cost-efficiency.

~~(20)~~ (21) Technology--The use of instructional aids, methods and/or other computer-based tools that enhance student learning.
~~(21)~~ (22) TSI Assessment Time Periods--For phase-in of TSI Assessment college-ready standards, the following time periods shall be applicable:
(A) Phase I--Start date: institution's first class day of fall 2013; expiration: the day immediately before the first class day of fall 2017;
(B) Phase II--Start date: institution's first class day of fall 2017; expiration: the day immediately before the first class day of fall 2019; and
(C) Final Phase--Start date: institution's first class day of fall 2019; no expiration.
~~(22)~~ (23) TSI Assessment--The Board-approved assessment instrument designated in §4.56 of this title (relating to Assessment Instrument) for use by institutions of higher education for assessing a student's readiness to enroll in an entry-level freshman course.

§4.54 Exemptions, Exceptions, and Waivers

(a)(1) – (5) No Change

(6) A student who has previously attended any institution and has been determined to have met readiness standards by that institution. For students meeting non-Algebra intensive readiness standards in mathematics as defined in §4.59 (d)(1)(B), institutions may choose to require additional preparatory coursework/interventions for Algebra intensive courses, including MATH 1314/1324/1414 (or their local equivalent). It is the institution's responsibility to ensure that students are clearly informed of the consequences of successful completion of a mathematics pathways model which results in meeting the mathematics college readiness standard only for specific courses.

(7) – (9) No Change

(b) – (d) No Change

§4.55 No Change
§4.56 No Change
§4.57 No Change

§4.58 Advisement and Plan for Academic Success

(a) – (c) No Change

(d) Students enrolled in a mathematics pathway model (e.g., New Mathways Project, modular/Emporium models, etc.) must be clearly informed of the consequences of successful completion of this model which will result in meeting the mathematics college readiness standard only for specific college credit courses and that changing degree plans may require additional developmental education coursework/interventions.

§4.59 Determination of Readiness to Perform Entry-Level Freshman Coursework

(a) – (c) No Change

(d) An institution shall, as soon as practicable and feasible, indicate a student's readiness in reading, mathematics, and writing on the transcript of each student.

(1) Student readiness in mathematics is indicated as either:
(A) ready for any entry-level freshman mathematics coursework, or
(B) ready only for non-Algebra intensive courses, including MATH 1332/1342/1442 (or their local equivalent).

§4.60 No Change
§4.61 No Change
§4.62 No Change