Growing Portability of Entry-Level Mathematics Courses in University Core Curriculum in Texas

Dana Center
Mathematics
PATHWAYS

This brief provides a summary of core curriculum requirements for entry-level mathematics courses at Texas universities. Based on data from the 2016–2017 Mathematics Pathways Transfer Inventory,[1] we find that the majority of Texas universities' core curriculum policies align with the Dana Center Mathematics Pathways (DCMP) model for multiple mathematics pathways.
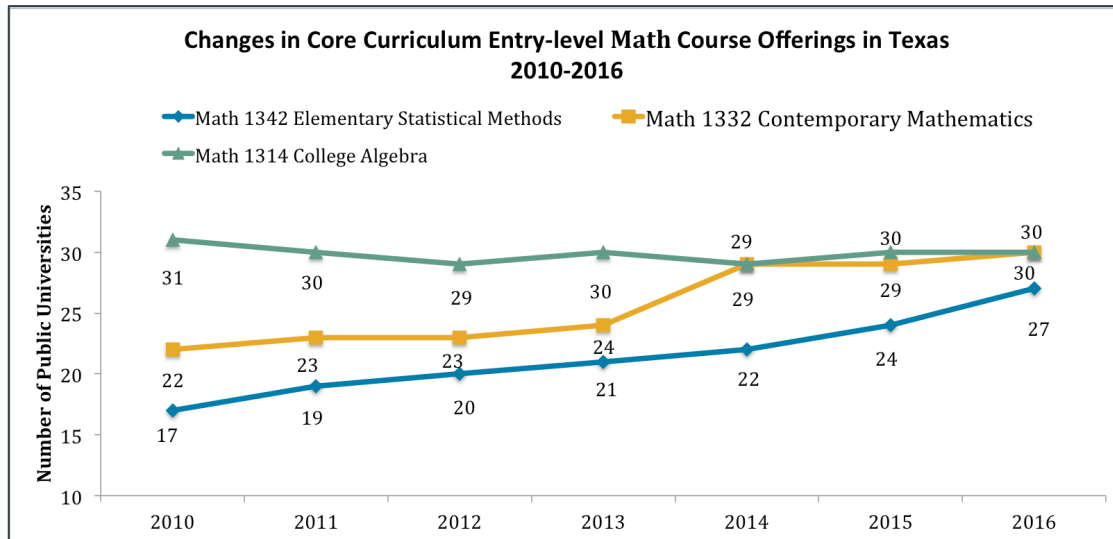
Each year, universities have the opportunity to revise their core curriculum in accordance with Texas Higher Education Coordinating Board (THECB) rules.[2] Over the past six years, the number of universities updating their core curriculum to support multiple entry-level mathematics courses has increased.

Math 1314 College Algebra, Math 1324 Mathematics for Business, Math 1332 Contemporary Mathematics (Quantitative reasoning), and Math 1342 Elementary Statistical Methods are defined as entry-level courses according to Texas Administrative Code.[3]

Core Curriculum Changes 2010–2016

The number of universities offering Math 1332 in their core curriculum equals the number of institutions offering Math 1314—30 out of 36 Texas universities.

Figure 1

Changes in Core Curriculum Entry-level Math Course Offerings in Texas 2010-2016

* In 2015, UT–Pan America and UT–Brownsville merged to create one university, UT–Rio Grande Valley, resulting in a decrease of 1 for the total count of public universities in Texas. The trend lines in this figure do not include data for UT–Permian Basin for years 2010-2012. In addition, in 2016, Texas A&M University–Galveston was added to the dataset; it is the only year that the university's core curriculum is represented.

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[1] The Charles A. Dana Center (2016). *Texas transfer inventory*. Available online at https://dcmathpathways.org.
[2] Texas Higher Education Coordinating Board. (2016). *Texas core curriculum.* Retrieved from http://www.thecb.state.tx.us/index.cfm?objectid=417252EA-B240-62F7-9F6A1A125C83BE08.
[3] See 19 Tex. Admin. Code § 1.4(c) (4.53).

Twenty-seven universities offer statistics in the core curriculum. Since 2010, the number of universities that include college algebra has decreased modestly, while eight institutions have added contemporary math and 10 have added statistics.

In addition, 28 universities offer Math 1324 in the core curriculum. Math 1324 is now defined as an entry-level course, and institutions are no longer permitted to use Math 1314 as a pre-requisite for enrollment. However, students must be deemed TSI complete for algebraic-intensive entry-level coursework to enroll in Math 1324.

Out of 36 institutions, 33 require students to take three hours of mathematics to satisfy their general education requirement. The University of Houston, Texas A&M University, and The University of Texas at Arlington require six hours. Since 2013, eight schools have decreased their mathematics general education requirement from six to three hours.

Figure 2

Changes in Core Curriculum SCH Requirements or Mathematics 2013-2016