



Mathematics Pathways

Rule 6A-10.024, Articulation Between and Among Universities, Florida Colleges, and School Districts

Rule 6A-10.030, Other Assessment Procedures for College-Level Communication and Computation Skills

Rule 6A-14.0303, General Education Core Course Options



Background: Florida Mathematics Re-Design Recommendations

- Research indicates that mathematics is one of the most significant barriers to postsecondary student success and completion.
- The Dana Center (2016) identifies potential drivers behind the mathematics challenge:
 - Long mathematics course sequences that often begin with developmental, non-college credit courses; and
 - A misalignment of mathematics course content with students' programs of study and career goals.
- The Florida Mathematics Re-Design Recommendations include 11 recommendations for state policy, institutional policy, and evidence-based practices designed for scale and are a culmination of the year-long Florida Mathematics Re-Design Initiative in 2018-2019.
- One of the recommendations was to “create common mathematics pathways by aligning mathematics courses to programs, meta-majors and careers in Florida,” which was reflected in Senate Bill (SB) 366 in 2021.

Florida Context and Impact

- The Community College Research Center (2017) identifies enrollment in a gateway mathematics course in a student's first year as a predictor of long-term college success and completion. However, from 2017 to 2021 in the Florida College System (FCS):
 - Only 29 percent of Associate in Arts first-time-in-college students attempted and completed gateway math in their first year
 - Only 18 percent of Associate in Science first-time-in-college students attempted and completed gateway math in their first year.
- Additionally, unsuccessful course attempts lead to longer time to degree and could result in increased costs for repeat course enrollments. In the FCS:
 - Gateway math course enrollments have steadily declined, from 220,000 course enrollments in 2016-17 to 187,000 course enrollments in 2021-22.
 - The passage rate of gateway math courses hovers between 67 and 69 percent. That means thirty (30) percent or more of all gateway math course enrollments are unsuccessful (D, F, W).
 - For economically disadvantaged students, 37 percent of attempts are unsuccessful.
 - For Black students, 43 percent of attempts are unsuccessful.

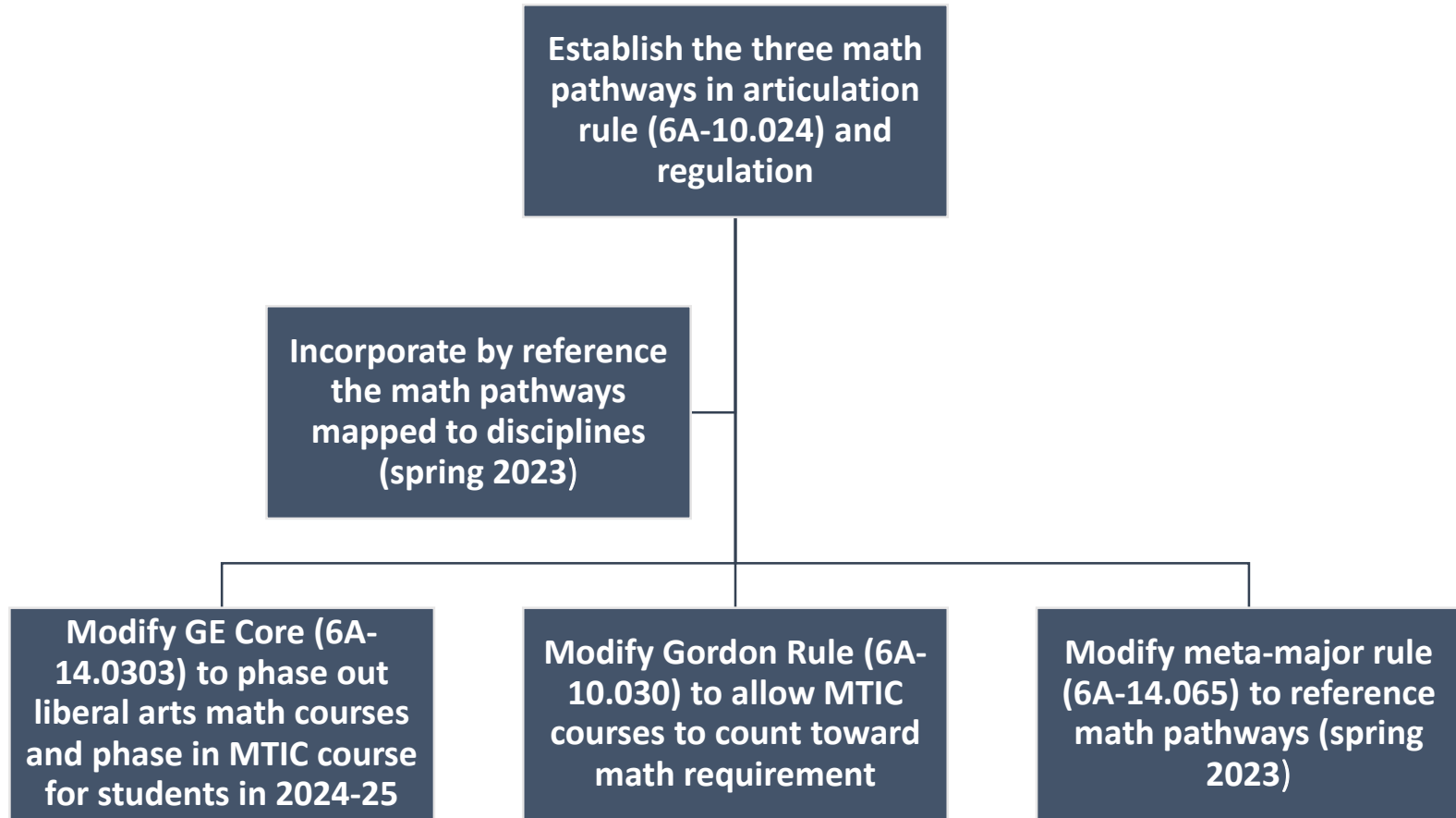
Proposed Pathways

Algebra through Calculus

Statistical Reasoning

Mathematical Thinking in Context

Mathematics Pathways Implementation



MTIC = Mathematical Thinking in Context courses

Rule 6A-10.024, Articulation Between and Among Universities, Florida Colleges, and School Districts: Proposed Amendment

- Rule 6A-10.024, FAC, implements the provisions of the statewide articulation agreement in section 1007.23, Florida Statutes.
- The proposed rule amendment incorporates new language related to establishing three statewide mathematics pathways for students, pursuant to SB 366.
- The amendment also incorporates a mathematics pathways list that identifies the three mathematics pathways and the associated learning outcomes and gateway courses for each pathway.

Rule 6A-10.030, Other Assessment Procedures for College-Level Communication and Computation Skills: Proposed Amendment

- Rule 6A-10.030, Florida Administrative Code, establishes the required coursework students attending public postsecondary institutions must successfully complete to demonstrate college-level writing and mathematics skills prior to the receipt of an Associate in Arts degree or entry into the upper division.
- The proposed rule amendment updates the mathematics coursework requirements in the rule to align with the new mathematics pathways, as established pursuant to SB 366.

Rule 6A-14.0303, General Education Core Course Options: Proposed Amendment

- Rule 6A-14.0303, Florida Administrative Code, implements the provisions of the general education core in section 1007.25, Florida Statutes, and identifies the core course options for each of five subject areas: communication, mathematics, social sciences, humanities, and natural sciences.
- The proposed amendment updates the mathematics core course options to align with the new mathematics pathways, as established pursuant to SB 366.



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