



Math Initiative FAQ

What is the UW System Math Initiative?

Faculty, staff, and administrators are collaborating to reduce the number of students placed into remedial courses, help students successfully complete remedial coursework (if needed), complete the appropriate first credit bearing math course (gateway math course) in their first year, and be able to transfer that coursework in a meaningful way. The Math Initiative builds on many years of foundational work on student success in math at UW institutions and will adapt national models and best practices to meet the needs and goals of UW students and institutions.

This work is about placing the right students in the right math courses at the right time. Students in some fields of study, for example, will benefit more from an introductory statistics course than from a college algebra course designed as a pre-requisite for calculus.

What are the goals of the UW System Math Initiative?

- Increase enrollment rates in a math course (remedial, gateway or higher level) in the student's first year.
- Reduce the number of students placed into remedial math courses.
- Improve the success of students in remedial math coursework.
- Improve the success of students in their first credit bearing math course.
- Ensure the transferability and applicability (filling a math requirement vs. transferring only as an elective) of math courses among UW System institutions.

How will UW System institutions reach those goals?

- Common cut score for math placement at UW institutions (implementation began in fall 2017).
- Multiple measures for math placement supported by UW System funding (UW System 2017 RFP to support implementation or expansion of use of multiple measures with up to \$25,000 for an institution).
- Best practices for teaching math remediation, such as co-requisites and summer bridge programs.
- Common course definitions and common learning outcomes developed by math faculty across UW institutions for gateway math courses.
- Math pathways tailored to majors
 - Use of meta-majors
 - Definition: Group of individual majors under a larger academic umbrella, such as the following majors under the social and behavioral sciences umbrella: psychology, sociology, and social work.
 - This approach builds on what some campuses already may call academic clusters, career clusters or communities of interest.
 - Example: [Ohio State University meta-majors](#)

How the use of meta-majors helps students

- Helps undeclared majors complete the gateway math requirement relevant to their general area of interest.
- Helps declared majors take relevant math.
- Helps transfer students, whose gateway math requirement completed at one UW institution will apply as such at any other UW institution (instead of only as elective credits).

- Use of math pathways
 - Definition from Dana Center: “A mathematics course or sequence of courses that students take to meet the requirements of their program of study.”
 - UW math pathways will encompass developmental math and the first credit bearing math courses for meta-majors.
 - Example: [UW-Milwaukee Math Pathways](#)

What are gateway courses?

Gateway courses are the first college-level or foundation courses for a program of study. These courses are for college credit and apply to the requirements of a degree. (Source: [Core Principles for Transforming Remedial Education: A Joint Statement](#), by Charles A. Dana Center, Complete College America, Inc., Education Commission of the States, and Jobs for the Future, 2012).

What evidence supports the UW System Math Initiative approach?

External

- The Case for Mathematics Pathways identifies the mismatch of content and long course sequences as drivers that create barriers for students ([Dana Center, 2016](#)).
- Traditional mathematics courses have been found to be the most significant barrier to degree completion for all fields of study ([Saxe & Braddy, 2015](#)).
- Each year in the United States, only 50 percent of students pass the most commonly enrolled gateway math course, college algebra, and fewer than 10 percent of students who pass this class enroll in calculus, a typical requirement for STEM degrees ([Gordon, 2008](#)).
- Outcomes are especially troubling for minority and underserved students. These populations are vastly overrepresented in remedial math courses and are consequently disproportionately impacted by the high rates of failure ([EdSource, 2012](#)).

Internal

- UW-Milwaukee impacts for the first 2 years of curriculum redesign using Carnegie Math Pathways Quantway 1 (developmental) and 2 (quantitative reasoning), with a new format including group work and class discussions and integrating college success skills:
 - About 70% of freshmen needing math remediation completed developmental math, compared to the historic 55%.
 - The persistence rate was close to 90%, compared to the historic 75%.
 - Twice as many of the lowest placed students were able to complete a credit bearing math course in 2 semesters as previously they did in 4.
- UW System announced an RFP in June 2017 to support implementation or expansion of use of multiple measures with up to \$25,000 per institution. This work will provide data to inform the Math Initiative.
- UW System secured \$2.3 million in external funding from Great Lakes Higher Education Corporation & Affiliates in January 2018. A portion of the funding supports institutional research. Data analysts from each UW institution are compiling campus-level data so that each institution can make data-informed choices about math pathways in the best interest of their students.

www.wisconsin.edu/math-initiative/

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