

Math and Math Pathways Overview + Updates for Fall 2019

Overview: Math Pathways

- Initial System Initiative: Standardize pathways to improve transfer and outcomes Recommended pathways:
 - STEM
 - Quantitative Literacy
 - Statistics
- Downscaled to "let's just improve outcomes and transfer."
- "Math Pathways" is also a "game changer" that is part of the HERA initiative.

Current Status at UWM

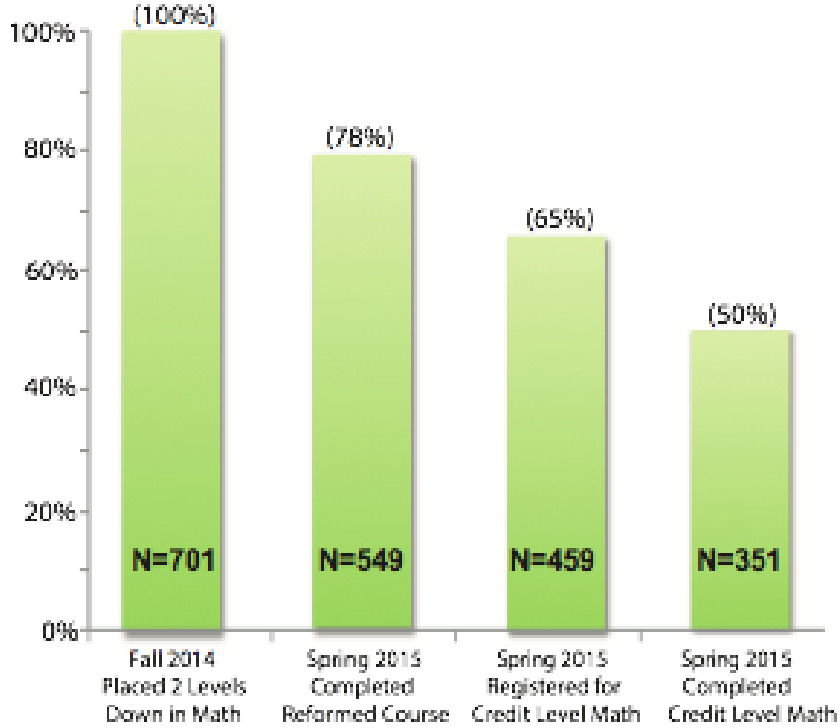
- Recent changes (fall of 2014):
 - QR Pathway
 - 1 semester 6 unit non-credit Foundations of Elementary Mathematics
- **BENCHMARK:** Current percent of new entering students who complete a credit-bearing math course in their first year. 50% (up from 24% in 2014).
- **TARGET:** Percent of new entering students who will complete credit-bearing math in their first academic year after scaling the strategy. 80%

Progress to date

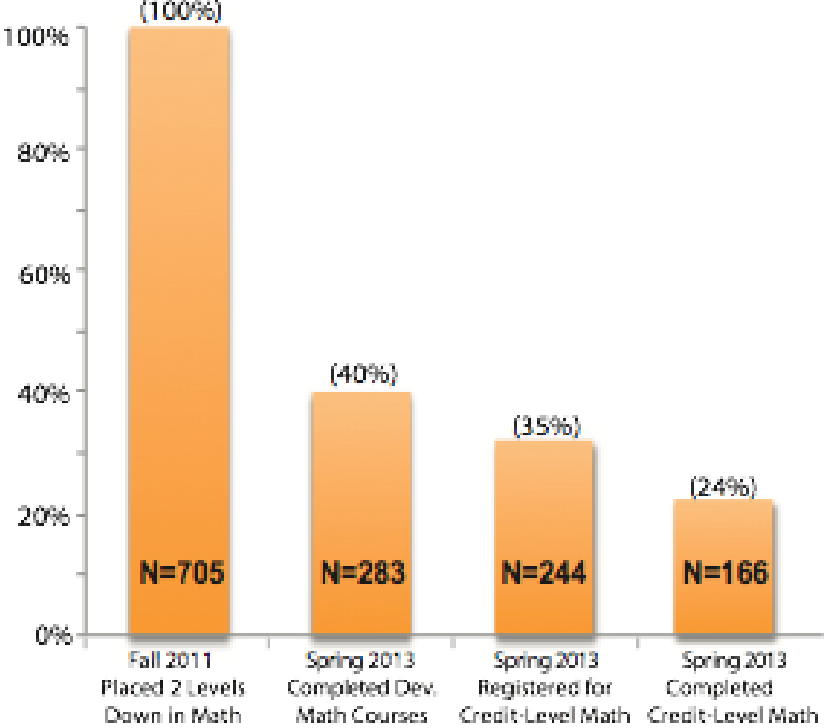
- Our data show that recent changes to our program, specifically the introduction of a Quantitative Reasoning (QR) pathway, and a 1-semester, 6-credit non-credit course *Foundations of Elementary Mathematics*, have significantly increased the percentage of students completing credit-bearing mathematics in a timely fashion. We introduced these changes in the Fall of 2014, and saw the percentage of new freshmen completing college-level mathematics in their first 2 semesters jump from 24% to 50%.

Progress to date

Completion Data: Prep College Math & Math Lit
Placement Level 0 Students: Fall 2014
New First Year Students



Completion Data: Traditional Course Sequence
Placement Level 0 Students: Fall 2011
New First Year Students



Opportunities: Co-reqs

- Initial co-req efforts have been very successful. In both QR and algebraic pathways, the completion rate for students in co-req'd sections is 82-83% (as opposed to the 50% who complete college-level math in their first year under the consecutive-semester model).
- Our primary strategy for increasing student success rate is therefore to increase the percentage of pathways courses that we offer in the co-req'd format.

Opportunities: Pathways

- 56% of our new students satisfy their math requirement with a College Algebra course
- 3% take the Quantitative Reasoning course (MATH 102)
- 7% take some other course (largely MATH 103).
- Anecdotal reports from instructors suggest that there are a significant number of students in College Algebra courses who do not need to take algebra for their program of study.

Pathway Resources

- <https://uwm.edu/registrar/students/panther-math-prep/>
- <https://uwm.edu/math/undergraduate/resources/math-placement/math-course-placement-information/>
- What kind of additional resources would be helpful to advisors and students?

Changes for fall 2019

- Math 105 and 108 will now count as repeats of each other.
- Math 116 is being phased out (but still on the books for summer and fall). Students with placement level 20 can take 105, then 115 if they want to get to 231.
- Students who take Math 92/102 then decide to change majors and need algebra: as of Fall 19 they can go directly into math 98. (Grade of C or better in 102 has been added to placement level 10, the prereq to 98).

Changes for fall 2019

- Coming soon (perhaps spring 2020): 1-credit "bridge" course from 102/103 to 105. For now, anyone who took 102/103 then wants 105, email Suzanne Boyd sboyd@uwm.edu for permission to re-take the math placement test.
- No prereq for Math 92. Students can now take either 92 or 94, based on major. For chemistry and calc, they should take 94.
- Prereq 10 (or math ACT 18) for 103. Students can take 103, or 98, based on major. For chemistry and calc, they should take 98.

Resources

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All QLA Syllabi available on request from Dave.