

# Mathematics Self-Assessment Tool

Based on national research on increasing the rate of students who complete their college level math within the first year, we have developed this self-assessment tool to support colleges as they design, review, and refine their math placement, math pathway design, and math instruction practices.

We suggest that you convene faculty, staff, and administrators to discuss the extent to which your efforts incorporate these practices.

For each of the practices below, consider the degree to which your college has implemented the practice.

1. Emerging – college is either not yet working on this practice, is still in the planning stages, or is implementing on a small scale (ie piloting for a small number of courses, programs, or students.)
2. Developing – college is implementing for a significant number of courses, programs, and students.
3. Scaling – this is the current college practice for most courses, programs, and students.
4. Fully Scaled – this is the current college practice for all courses, programs, and students and ongoing self-audits are used to make sure that no student group is negatively impacted.

## RIGHT MATH

1	2	3	4	Description of Practice
				A. Program learning outcomes are used to determine which math courses are required for students in that program.
				B. Students participate in professional academic advising which advises them into the correct math pathway.
				C. Multiple math pathways are offered and data confirms that students are enrolling in the correct math courses for their programs.
				D. Students are enrolled in Intermediate Algebra only if <i>both</i> of the following are true: <ol style="list-style-type: none"> <li>a. It is required for the student's program of study or for transfer <i>and</i></li> <li>b. The student did not successfully complete a second year algebra course in high school.</li> </ol>
				E. Math courses use contextualized instruction with examples, projects, and problem sets relevant to the program of study.
				F. College staff review and analyze course and program outcomes and their alignment as part of an ongoing cycle of data evaluation.
				G. There is collaboration between faculty who teach quantitative courses in support of workforce programs and faculty in the mathematics department.
				H. Math and program faculty use disaggregated success rates for their courses to iterate curriculum.
				I. Math and transitional studies faculty collaborate to ensure alignment between Basic Education for Adults (BEa) math courses and tuition bearing math courses.

## PLACEMENT

1	2	3	4	Description of Practice
				A. A range of instruments in addition to or in place of an exam (high school course work, high school GPA, self-placement, placement reciprocity) are available to students. <i>NOTE: When considering this practice, consider which instruments are available to which student populations. To be fully scaled, a range of instruments should be available to ALL students; not just recent high school graduates.</i>
				B. Placement instruments use are monitored for equitable access (i.e; which student populations use what instruments)
				C. Obstacles to use for placement instruments (inability to obtain high school transcripts, lack of technology, cost, ...) have been identified and mitigated.
				D. Placement staff have ongoing training to ensure that they do not default to outdated practices or to using placement tests as the primary means of assigning initial course enrollment options.
				E. Default placements are into college level courses with extra supports provided for identified needs.
				F. Identifying the right math pathway for a student's goals and appropriate supports for a student's success are embedded into the placement process.
				G. Students transitioning from Basic Education for Adults (BEa) to tuition bearing courses are placed based on their BEa coursework and are not asked to engage in the placement process as if they were a brand new student.
				H. A process for collecting student feedback about the placement process and using it to improve the process is part of an ongoing cycle of data evaluation.
				I. College staff review and analyze disaggregated college level course outcomes based on math placement as part of an ongoing cycle of data evaluation.
				J. College staff regularly review and analyze placement policies and practices for efficacy and equitable placements and make changes to placement policies based on the results of this analysis.

## COREQUISITE MATH AND COLLEGE LEVEL SUPPORTS

1	2	3	4	Description of Practice
				A. Students are enrolled in program appropriate college level mathematics courses within their first year. <i>NOTE: When considering this practice, to be fully scaled this should include ALL students and ALL programs. For part time students "within the first year" can be thought of as within the first 45 credits.</i>
				B. Either corequisite or other intensive just in time supports are offered for all entry college level mathematics courses.
				C. Tuition bearing stand alone precollege math courses have been eliminated.
				D. Students with high school credentials are not being enrolled in stand-alone BEa courses solely for math skill development.
				E. College staff regularly review disaggregated "college math completion within the first year" data and then identify and implement evidence based interventions to increase overall student completion and to close equity gaps.

# CLASSROOM ENVIRONMENT AND COURSE DESIGN

1	2	3	4	Description of Practice
				A. Faculty provide meaningful and culturally responsive learning experiences for students and assess whether course design is resulting in equitable student mastery of outcomes.
				B. The college uses disaggregated student course outcomes data in addition to regular feedback from faculty and students to identify relevant professional development opportunities to improve instruction, course design, pedagogy, and assessment.
				C. Faculty employ equitable grading practices.
				D. Course materials are free or low cost.
				E. Faculty are supported in ensuring that courses are accessible (ie Universal Course Design, Transparency in Teaching and Learning, Culturally Responsive Pedagogies).
				F. Faculty are given access to their own disaggregated student outcomes data with the expectation that they will participate in regular professional development and reflection in support of continuous improvement.

## NOTES: