**First Year Math: Gateway Course Development**

**The problem/opportunity:**  In 2013-14, 46% of students enrolled in Math 101S passed the course. Low pass rates in developmental math classes are not unique to Trinity. The national outcomes are worse, with one oft-cited study finding that only 33% of community college students enrolled in developmental math went on to complete and pass the developmental sequence.[[1]](#endnote-1) As a recent Brookings report put it, “Unfortunately, research suggests that remediation programs do not do a good job of improving student outcomes.”[[2]](#endnote-2) Fortunately, we know more than we ever have about how to transform developmental math education.[[3]](#endnote-3) Models like the California Acceleration Project have students “completing college math at 4.5 times the rate of students with comparable placements in the traditional sequence.”[[4]](#endnote-4)

**Vision:** All Trinity CAS students will enroll in one gateway math course, moving more quickly toward the course of study that speaks to their strengths and interests. Students will master the specific topics and skills they will need to succeed in that course of study. They will also be equipped for quantitative reasoning as workers, citizens, and consumers.

**The charge:**

1. Redesign gateway math courses (102/123, 108 and 109) and supplementary instruction according to the guiding principles below.
2. Help students identify meta-majors that will determine their foundational math selection:

MAT 102: STEM, MAT 108: Nursing & Education; MAT 109: Social Sciences & Humanities

**Guiding Principles for the redesign**

1. The gateway courses will enroll all Trinity CAS students. Accuplacer scores will be used for assessment, but not placement, purposes.
2. The gateway courses will develop exactly the knowledge and skills students must master to succeed in their chosen course of study (social science & humanities, STEM, Nursing & Ed)
3. The gateway courses will be supplemented with robust opportunities for students to learn, practice and master foundational skills (i.e. “remediation). (i.e. lab, online modules, summer or intercession courses)
4. The gateway courses will teach math using a context-driven approach as opposed to using a content-driven approach
1. Thomas Bailey, et al, “Referral, Enrollment, and Completion in Developmental Education Sequences in Community College,” *Economics of Education Review* 29, March 2012. [↑](#endnote-ref-1)
2. Bridget Terry Long, “Proposal 6: Addressing the Academic Barriers to Higher Education”, Hamilton Project Report for Brookings, 2014. Terry cites these studies in support of this claim: Bettinger & Long, 2009; Boatman & Long, 2010; Calcagno & Long, 2008; Martorell & McFarlin, 2011. [↑](#endnote-ref-2)
3. Charles A. Dana Center, Complete College America, Inc., Education Commission of the States, and Jobs for the Future, “Core Principles for Transforming Remedial Education: A Joint Statement,” December 2012. [↑](#endnote-ref-3)
4. Katie Hern. “Acceleration Across California: Shorter Pathways in Developmental English and Math.” *Change*, May/June 2012. [↑](#endnote-ref-4)