Executive Summary for Math Acceleration via Curricular Change
Meeting Held August 20, 2015

Assumptions: all references to placement levels are based on the current established thresholds for placement one level below college-level and placement two or more levels below college level. We assume that any new instrument for testing math knowledge and skills will have some measure of equivalence with current cut-off scores.

College Math Track (a.k.a. Non-STEM)

MATH 75 (3 cr)/75x (4 cr)
- A one-semester course for students who place two or more levels below college-level math
- Open entry, no minimum level of math skill required
- Exit from this course is into MATH 100, MATH 111, and MATH 115.
- Course title: Introduction to Mathematical Reasoning
- Course description MATH 75: This course prepares students for MATH 100, MATH 111, and MATH 115. Course topics include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas with special emphasis on pattern recognition and problem solving
- Course description MATH 75X: This course prepares students for MATH 100, MATH 111, and MATH 115. Course topics include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas with special emphasis on pattern recognition and problem solving. Additional topics may include set theory, inequalities, and quadratics
- Course SLOs: 1) Solve applied mathematical problems, judge reasonableness of results, and communicate conclusions using appropriate terminology and symbols. 2) Recognize and express mathematical patterns in various forms and contexts.
- Campuses will choose whether to offer it as a 3-credit or 4-credit course. Those who offer as 4-credit will have an additional outcome to reflect the additional 15 hours of instruction.

MATH 78 (1 cr)
- A one-semester co-requisite for MATH 100 and 115 for students who place one level below college level math
- Course title: College Math Companion
- Course description: This course provides students concurrently enrolled in MATH 100, MATH 111, or MATH 115 with Just-In-Time support with special emphasis on pattern recognition and problem solving. Course topics are tailored to the concurrent course and may include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas
- Course SLO: Demonstrate mathematical reasoning skills needed to successfully complete a companion college math course. [100, 111, 115]
College Algebra Track (a.k.a. STEM)

**MATH 82 (4 cr)**
- A one-semester course for students who **place two or more levels below college algebra** via whatever skills test is used. [LP comment + RG revision: In curriculum documents, the prereq can be stated simply “Appropriate math placement score” and not worry right now about what the test is or what the exact cut-off score is.]
- Exit from this course is into MATH 103 (or equivalent)
- Course title: Algebraic Foundations
- Course Description: MATH 82 covers elementary algebra topics. Topics include linear equations and inequalities, graphing, linear systems, properties of exponents, operations on polynomials, factoring, rational and radical expressions and equations, quadratic equations, and applications.
- Course SLOs: (3 agreed upon SLO’s. Campus may add more): (1) Use algebraic techniques to analyze and solve applied problems. (2) Graph linear and quadratic equations. (3) Solve equations, inequalities, and systems

**MATH 82x (5 cr)**
- A one-semester course for students who **place two or more levels below college algebra** via whatever skills test is used. [LP comment + RG revision: In curriculum documents, the prereq can be stated simply “Appropriate math placement score” and not worry right now about what the test is or what the exact cut-off score is.]
- Exit from this course is into MATH 103 (or equivalent)
- Course title: Expanded Algebraic Foundations
- Course description: MATH 82X covers elementary algebra topics. Topics include linear equations and inequalities, graphing, linear systems, properties of exponents, operations on polynomials, factoring, rational and radical expressions and equations, quadratic equations, and applications. Additional topics may include graphing by transformation, introduction to logarithms and functions, and dimensional analysis.
- Course SLOs: (3 agreed upon SLO’s. Campus will add one more, based on which of the additional topics is/are selected): (1) Use algebraic techniques to analyze and solve applied problems. (2) Graph linear and quadratic equations. (3) Solve equations, inequalities, and systems

**MATH 88 (2 cr)**
- A one-semester co-requisite for MATH 103 (or equivalent) for students who **place one level below college level algebra**
- Course title: College Algebra Companion
- Course Description: Math 88 provides students with supplemental algebra instruction that directly supports the topics covered in Math 103.
- Course SLO: Demonstrate algebra skills needed to be successful in Math 103
Note: Students who do not place into MATH 82 or MATH 82X may take a non-credit prep course determined by campus to qualify. Alternately, the student could opt to pursue the MATH 75 path.