

Math Pathways-

Hybrid between Co- Requisite and Accelerated

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“The Problem: Developmental Math”

60%

of community
college
students

60% of CC students taking the placement exam need **at least 1 remedial course**

3-5

additional
courses

The remedial college math path can be **3-5 courses**

>

More students drop out **between courses** than from an actual class

1

remedial math
pathway

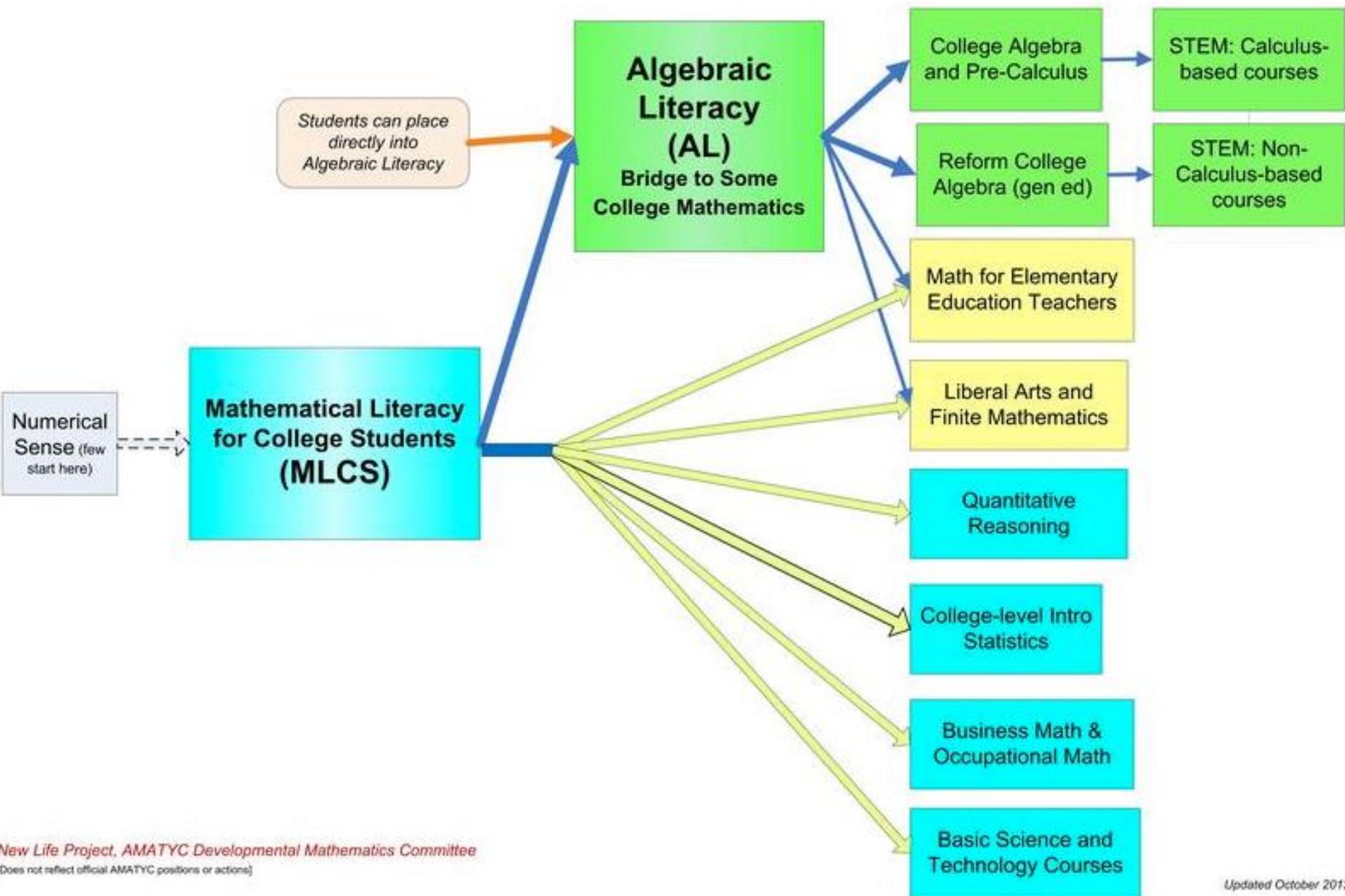
Only **one remedial math pathway**, regardless of major

Pathways Development Timeline

- 2008/09 – AMATYC New Life Initiative
<https://dm-live.wikispaces.com>
- 2009/10 – Statway™ and Quatway™
- Fall 2011 – Statway™ Pilot begins
- Spring 2012 – Quatway™ Pilot begins
- 2012 – New Mathways Project (NMP) vision is shaped

New Vision of Mathematics Pathways: Fewer non-credit math courses for most students

from the New Life Project



Carnegie's Solution: New Mathematics Pathways

Two 1-year pathways

1

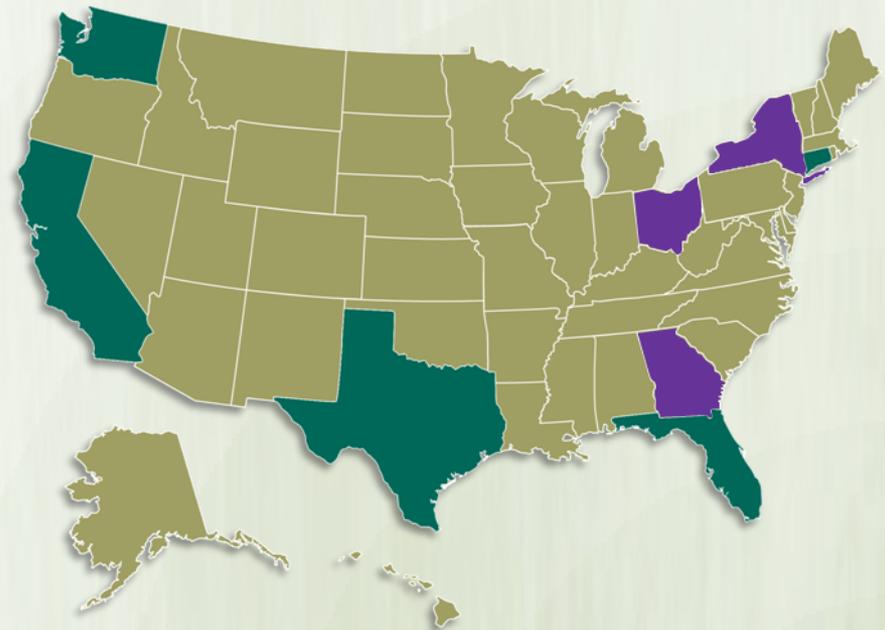
STATWAYSM

Through college-level
statistics

2

QUANTWAY

Through college-level
quantitative reasoning



Statway and Quantway Learning Outcomes

Developmental Mathematics Learning Outcomes

- Numeracy
- Proportional Reasoning
- Algebraic Reasoning
- Functions

Snapshot of Results Thus Far ...

- Ending enrollment compared to beginning enrollment: **84%**
 - Based on data from 53 classes at 21 reporting colleges as of January 17th, 2012
- Pass rate
 - 78% of STATWAY students received a grade of C or better
 - Based on data from 23 classes at 15 reporting colleges
- Assessment results
 - Mean mid-term exam score: **62%**
 - Based on goals set by 43 classes reporting, range 51% to 72%

THE
New Mathways
PROJECT

Four Fundamental Principles

1. Multiple pathways with relevant and challenging mathematics content aligned to specific fields of study
2. Acceleration that allows students to complete a college-level math course more quickly than in the traditional developmental math sequence.
3. Intentional use of strategies to help students develop skills as learners
4. Curriculum design and pedagogy based on proven practice

Taking a Systemic Approach to Reform

Content

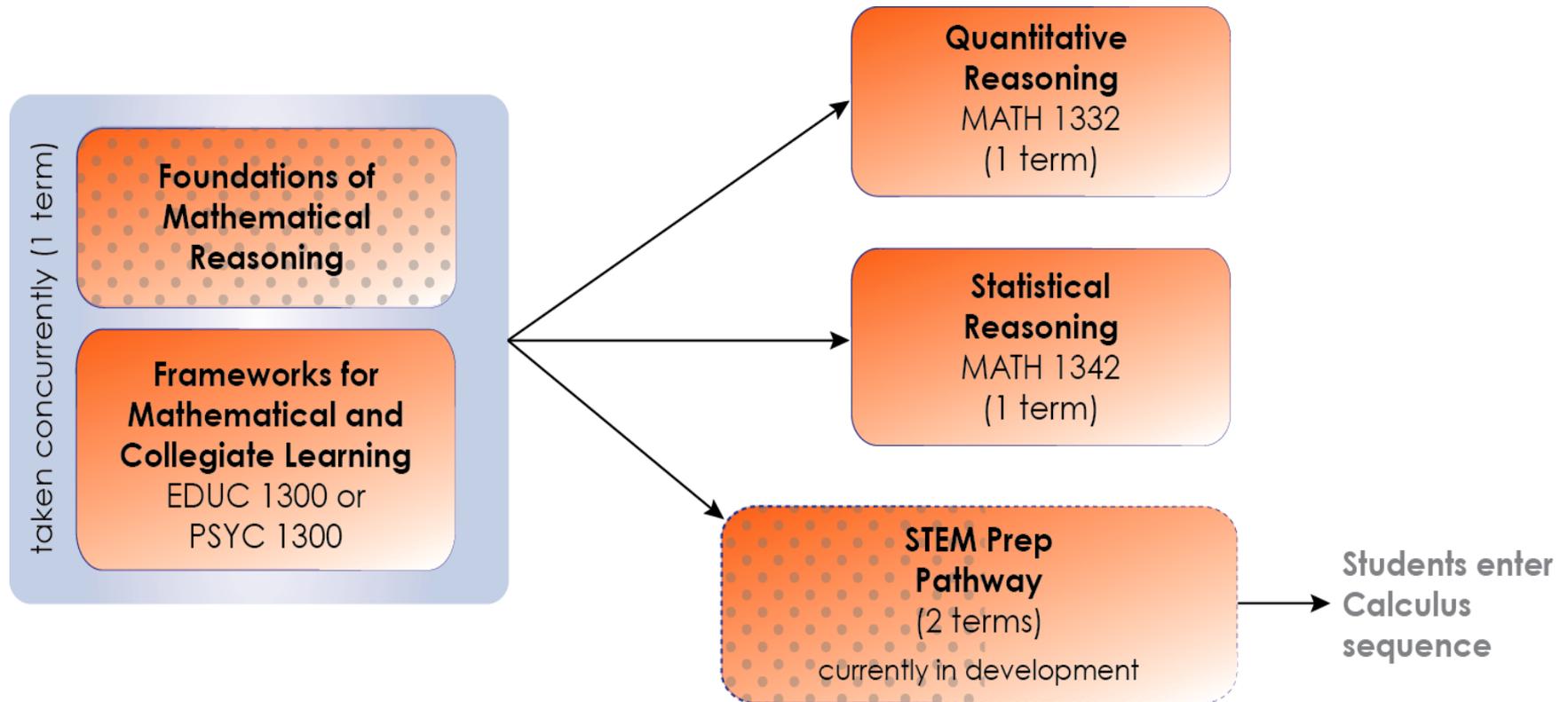
**Sequence
Structure**

Delivery

**Student
Supports**

**Faculty
Supports**

New Mathways Project Course Structure



-  non-transferable courses
-  transferable courses

Frameworks Course Concepts

- Teaches concepts from the learning sciences to help students acquire the strategies and tenacity necessary to succeed
 - in mathematics
 - in other college coursework
 - future careers.
- These concepts will be applied, practiced, and reinforced in the mathematics courses.

Frameworks Course Outcomes

- Students will learn about different careers
- Set academic goals
- Create a completion plan, which will include selecting the correct mathematics pathway for their goals.

Developmental Math and Student Success Linked Courses

Examples

- Bridges Classes (full-year progression)

Examples

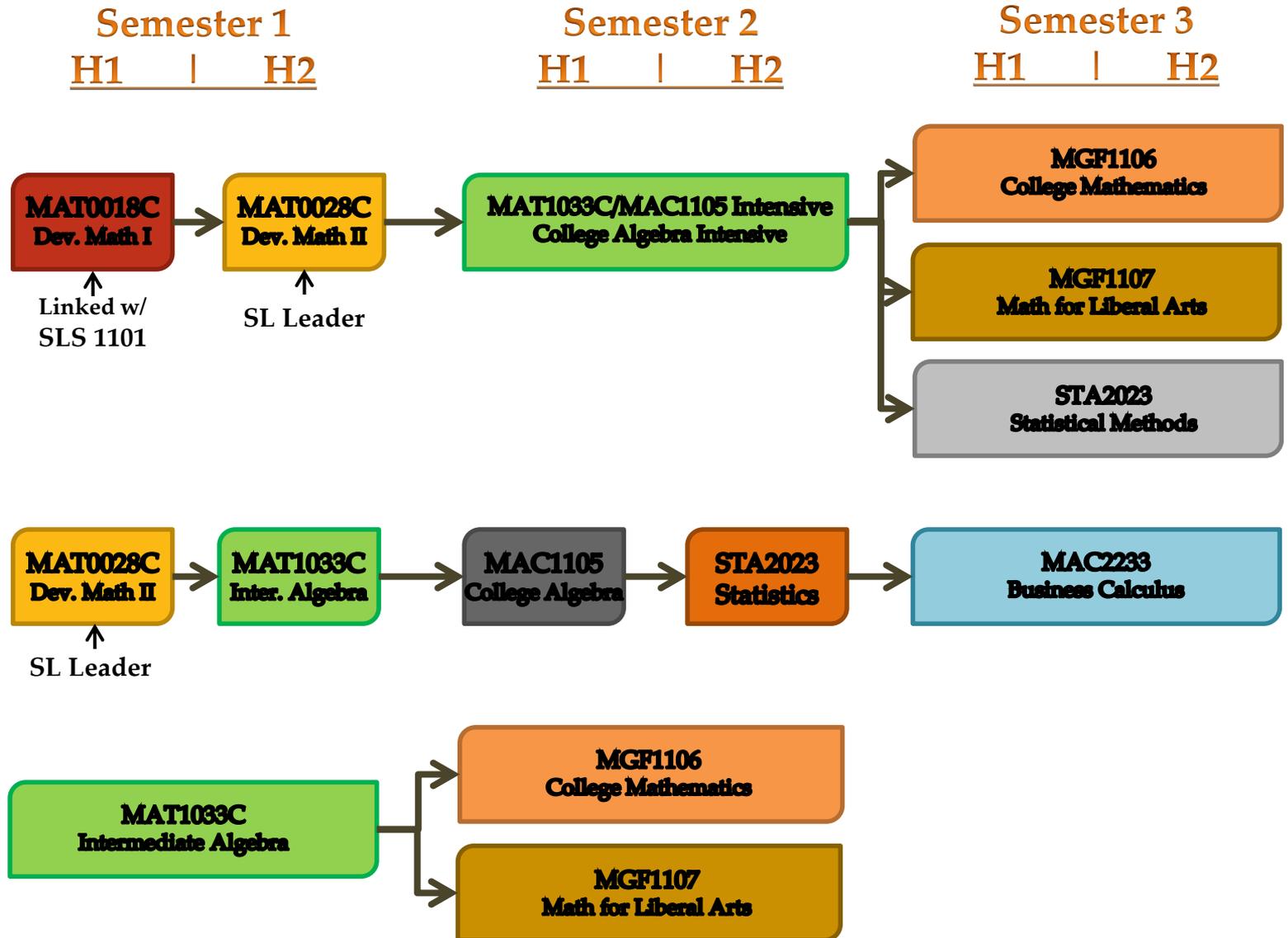
- Dev. Math I and Student Success
- Dev. Math II and Students Success
- Intermediate Algebra and Students Success

Trending Dev Math Redesign Problems to-date

Over 100 interviews with faculty in 7 states:
CA, TX, OH, NY, FL, GA, AR

- Content
- Content Delivery
- Classroom Space/Size
- Initiative fatigue...
- Data Distrust
- Administrative Distrust

Various Math Pathways



Questions

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