

# ALABAMA MATH PATHWAYS TASK FORCE

*Notes taken from July 16th meeting in Montgomery at ACCS Offices*

Thank you all for a great task force meeting today!

Here are the action items you identified and decisions you made:

- The task force will prioritize students and what they need when discussions are difficult and/or decisions must be made.
- Veronica will create a Microsoft Teams page where agendas, meeting notes, working files, and resources.
  - Veronica will be the primary note taker for meetings.
  - All task force members will send syllabi for Math 108 or other non-STEM math courses to Veronica to share on the Teams page.
  - Task force members will share a list of the current math pathways course options at their institutions/systems including high school, ACCS, and each public 4-year. (for example, QR, data science, finite math, the path to calculus)
  - If anyone has additional resources that can inform the work of the task force, please share them with Veronica – responses to the math course alignment survey, for example.
- The task force will meet monthly. Chantae will send out a poll early next week to identify an optimal standing day and time.
- The next in-person meeting will be in June 2026, and it will be hosted at UAB.

Here are the challenges, contributing factors, and needed data you identified. I would encourage you to revisit these as a group and make sure that they capture all the key factors, supporting evidence (see “Defining the Challenges” sample table) and that they are written from a perspective that does not place blame on teachers or students but focuses on ineffective policies, practices, and structures.

1. There are academic [and cultural] differences between math in high school, community college, and 4-year universities.

Factors:

- All high schools are not equivalent.

Evidence:

- State report card
- Student GPA
- Math placement scores

2. There are a variety of factors that effect student preparedness and success in college-level math.

Factors:

- Content: Based on placement – inaccurate placement tool
- “Student success skills”: Pacing of courses is different, as are expectations
- Lack of certified instructors in HS
- Lack of guard-rails and common boundaries in HS and HE
- Post-pandemic expectations of students

Evidence:

- Compare course grades with placement tool outcomes, especially placement based on HS GPA and grades
- Student survey gauging student success skills [Joan’s comment: consider this tool
- How do different sectors define “prepared for college?”
- Gather information to determine the number of certified math teachers in the K12 system.
- Determine the types of support provided to HS students compared to college students. What are the “guardrails” in each context and why are they so different?

3. Pathways/curriculum requirements are unclear, from K-12 to postsecondary, within postsecondary individual institutions, from CC to 4-year

Factors:

- We don’t have the necessary information (disconnection)
- When decisions are made, the appropriate people are not at the table
- Our advisors don’t know all of the necessary information
- Our advisors/students don’t use resources like stars
- politics (4-year vs. 2-year)
- More coordination and involvement of ACHE

Evidence:

- Curriculum maps
- Out-of-pathway courses/lost credit
- Courses and sequences
- Anecdotal
- MOUs are siloed
- Patterns of major switching

4. Better communication is needed statewide

Factors:

- Slow moving
- Lots of parts
- Need to be on the same page

Evidence

- # of sections of Math108 vs Math 100 at each community college
- # of degrees that include/require Math108
- Poll advisors

5. The content and pedagogy of math courses do not motivate or engage students.

Factors:

- Relevance of content to students is not apparent
- Order of classes is not necessarily clear to students
- I need this math class to graduate – lack of perceived importance of math (both on the part of the student and the discipline/faculty/advising)
- Only focusing on grades to check a box
- Courses can be done by AI, so students use AI (connects to pedagogical strategies)
- Instructional practices not keeping pace with technology

Evidence:

- Focus groups with teachers, students, parents, and advisors
- Surveys
- When students take math courses in their programs

And finally, here are the notes I took when you were initially sharing your challenge categories:

1. Academic and cultural differences between CTE/transfer, K-12/CC/4-yr
  - a. Among students (traditional vs returning, expectations about technology, online learning)
  - b. Among faculty and staff (amount of support, instructional practice, perceptions of rigor, expectations)
  - c. Pedagogical and andragogical
  - d. Movement in K12 to conceptual understanding vs. procedural fluency -> HE not making the same shift at the same rate
2. Underprepared students
  - a. Content: Based on placement – inaccurate placement tool
  - b. “Student success skills”: Pacing of courses is different, as are expectations

- c. Lack of certified instructors in HS
  - d. Lack of guard-rails and common boundaries in HS and HE
  - e. Post-pandemic expectations of students
- 3. Pathways not well defined aside from path to calc
  - a. Unclear to students
  - b. Unclear to teachers, advisors, community, etc.
  - c. Lack of common numbers for courses, well communicated math pathways sequences, which numbers are with which sequence, what courses are for what majors
- 4. Communication
  - a. Internal – for example, Math 108 development
    - i. Advising, deans, teachers, students, etc.
    - ii. Planning to implementation to continuous improvement
    - iii. Shift in sections offered in HE, who is teaching which courses
  - b. External/Between systems
    - i. State dept of ed with ACCS with each 4-yr
    - ii. Community members
  - c. Siloed solutions to the same problems
- 5. Engagement and motivation is lacking
  - a. Relevance of content to students is not apparent
  - b. Order of classes is not necessarily clear to students
  - c. I need this math class to graduate – lack of perceived importance of math (both on the part of the student and the discipline/faculty/advising)
  - d. Only focusing on grades to check a box
  - e. Courses can be done by AI, so students use AI (connects to pedagogical ==strategies)
  - f. Instructional practices not keeping pace with technology