

**The Ohio Articulation and Transfer Network (OATN)  
Mathematics Initiative Subgroup Co-Chairs Meeting  
25 S. Front St., Columbus, OH 43215  
Basement Level Conference Room B-004  
Tuesday, July 25, 2017  
10:00 a.m. to 2:00 p.m.**

**Present:** John Holcomb, Andrew Tonge, Jim Fowler, Brad Findell, Ricardo Moena and Donald White

**ODHE/OATN Staff:** Stephanie Davidson, Paula Compton, Brenda Haas, Brett Visger, Hideo Tsuchida, Candice Grant, Michelle Blaney and Jessi Spencer

**I. Welcome & Introductions**

The meeting convened at 10:00 a.m. with attendees welcomed by Dr. Paula Compton and Dr. Ricardo Moena. Each participant was asked to introduce him/herself.

**II. Identification and Coordination of Subgroup Goals for FY18**

**Subgroup 1: Co-Requisite Courses**

On behalf of the co-chairs for Subgroup 1, Mr. Brett Visger of the Ohio Department of Higher Education (ODHE), provided an update that Subgroup 1 has conducted calls to discuss creation of resources for co-requisites and has agreed to wait until fall 2017 to continue moving forward with conversations. The goal of the fall discussion will be to resolve remaining concerns and view co-requisite models (statistics, QR, etc.). The group will also identify any models that currently exist at institutions and review initiatives at ODHE. Mr. Visger discussed that grant money is available for technical assistance; however, the group will need to work to confirm details regarding budgeting. Dr. Stephanie Davidson mentioned Complete College America could possibly assist with bringing technical content experts as speakers to future events. Dr. Ricardo Moena of Subgroup 2 went on to discuss that he attended a Co-Requisites meeting hosted by The Charles A. Dana Center, of which he serves on the Advisory Committee with Dr. Uri Treisman that includes state administrators, faculty, and funders. One take away is that the Advisory Committee is exploring who the funds should go to: those that have accomplished or help further excel their work or those that are at their infancy in math reform. Dr. Compton asked the co-chairs to think of what can be accomplished with current funding and what could be accomplished with additional funding. Mr. Visger discussed that Bridges to Success started the conversations of using funding to assist faculty with release time, but also suggested academic advisors should be targeted moving forward. Dr. John Holcomb, a co-chair of Subgroup 4, suggested building a survey to capture what each Ohio Public Institution is currently doing and changes with co-requisites.

Capturing this information could allow for operationalizing the number of students co-requisites are impacting and the number of courses related to co-requisites, if co-requisites are in all or limited mathematics sections.

#### Subgroup 2: OTM Redesign

Dr. Ricardo Moena, Chair for Subgroup 2, provided an update that a subset of the group has been working through the summer to rewrite the learning outcomes for the classical calculus sequence (TMM005 and 006). The focus is on why and how students use calculus; this has led the working team to think of the traditional calculus sequence and the possibility of resequencing calculus to better serve students in the STEM Preparation Pathway. Dr. Holcomb discussed that there might be issues with pre-requisite for calculus, as some students in STEM now opt for QR, instead of pre-calculus or trigonometry. Dr. Moena went on to discuss that compared to only 40% of students in Ohio who underwent a traditional prerequisite for calculus and ended up passing a calculus course, the success rate has increased to roughly 50%. Dr. Brad Findell expressed that pre-calculus is tough as the course compacts a year's-worth of material within a semester.

#### Subgroup 3: Communication, Outreach, and Engagement

Dr. Jim Fowler, a Co-Chair for Subgroup 3, provided an update that the subgroup has been focusing on Ohio Mathematic Initiative (OMI) "wins" through outreach and in-reach. In terms of outreach, areas have included presentations, meeting attendance, publications, and videos. In reference to in-reach, this has been an area of improvement among those currently involved in the OMI. The focus has been on communication through technologies such as OATN's Knowledge Base, and the subgroup continues efforts to meet with faculty and engage campus-wide discussions on what is working vs. what is not working. In addition, there are many opportunities to highlight Ohio nationally. Ms. Michelle Blaney of OATN mentioned Subgroup 3 members often attend other subgroups' meetings in order to understand what is happening in other key areas and help communicate with a wider audience. With Subgroup 1 focusing now on co-requisite strategies, if this subgroup would like representation from Subgroup 3, that could be accommodated. Dr. Compton discussed that in reference to the Ohio Guaranteed Transfer Pathways cluster panel meetings, mathematics representatives have been present at each meeting as a reference. Dr. Compton also suggested that at future chairs and leads networking meetings chairs/leads be empowered to speak about OMI at various campus meetings, as many faculties from other disciplines may not be aware of strides in mathematics. Mr. Visger and Dr. Fowler also suggested that Subgroup 3 provide updates at a future Chief Academic Officer/Provost meeting that is coordinated by Ohio Association of Community College and Inter-University Council of Ohio.

#### Subgroup 4: Data Collection, Analysis, and Sharing

Dr. John Holcomb, a Co-Chair for Subgroup 4 provided an update that the subgroup has been revisiting its mission and has suggested renaming the Subgroup as “Assessment”. In working with Dr. Stephanie McCann of ODHE, data were provided to the subgroup, which highlighted students taking mathematics courses in the state of Ohio in 2012. The hope is to utilize these data as a benchmark to make comparisons prior to OMI. A table was also provided by Dr. McCann, which displayed passing rates and grades for students taking OTM courses by institution. These data will be helpful as they can assist with comparing two- and four-year institutions in the number of students served. The subgroup expressed its intent to update this table yearly. To obtain a snapshot on where the state is currently, Dr. Holcomb and Dr. Donald White, co-chairs, suggested that a survey be sent to Chairs that answer questions, such as:

- Does your institution have alternative pathways? If yes, list the courses offered (QR, Applied Calculus, Liberal Arts Math, etc.)
- What courses were in place before the Ohio Mathematics Initiative (OMI)?
- What efforts are being made in co-remediation?

Dr. Davidson stated that Complete College America (CCA) might be tracking a few of these areas. Dr. Compton also mentioned that the data reported by the Charles A. Dana Center and Dr. Shoumi Mustafa (OATN) could be reviewed by the subgroup and used to determine if additional information needs to be captured.

#### Subgroup 5: Alignment Between Secondary and Postsecondary Content and Instruction

Dr. Andrew Tonge, a Co-Chair for Subgroup 5, provided an update that the subgroup has been at a standstill through the summer awaiting final legislation on the budget. Dr. Davidson mentioned possible funding opportunities through the Joyce Foundation in reference to work on 4<sup>th</sup>-year high school transition courses. Dr. Tonge went on to discuss topics related to how students transition, how some schools teach remedial courses, and how others teach elementary education transitional courses. Dr. Findell, a Co-Chair, spoke to revisions in K-12 high school graduation requirements and described the need to clarify what counts for Algebra II or equivalency. He presented the idea that a colleague suggested computer sciences as an alternative to Algebra II. Dr. Holcomb shared his observation about a meeting he had attended with Ohio LSAMP (Louis Stokes Alliance for Minority Participation). A total of eleven Ohio Public Institutions contribute to this alliance work. Dr. Holcomb mentioned that a group of Ohio LSAMP is focused on mathematics reform. Ohio LSAMP members suggested that curriculum should better prepare students for calculus and acknowledge how OMI is trying to promote

relevant applications into curriculum before alternative departments, such as engineering, request to teach calculus, as opposed to mathematics departments. Mr. Hideo Tsuchida of OATN informed those at the Ohio LSAMP meeting that through the OMI, the mathematics faculty is revising Ohio Transfer Module Calculus sequence course learning outcomes to appropriately serve students in STEM Preparation Pathway.

### III. Lunch

Meeting attendees took a lunch break from 11:25 a.m. to 12:00 p.m.

### IV. Key Discussion Topics

Mr. Brett Visger provided an update on Bridges to Success phase I and phase II. Ohio Bridges to Success builds on the work of the OMI by taking redesigned mathematics gateway courses to ensure mathematics is linked to appropriate majors and to allow for a clear guided sequence of courses for student success. A piece of this effort is to eliminate student confusion and to understand true gateway courses through data analysis. Phase I of the funding for Bridges to Success which was funded by the Helmsley Trust focused on planning. A total of nine institutions were awarded \$20,000.00 to create and pilot three to five structured pathways and to develop plans for measurable implementation. A kick-off meeting was held in the spring to bring together administrators, advisors, and faculty to talk about concepts. The nine institutions selected to pilot have been successful in gateway courses, most of which have conducted 1-2 sections in the spring and will conclude remaining sections in fall 2017. However, Kent State University has observed challenges in recruiting students to take gateway courses.

Phase II began with creating a Request for Proposal (RFP) for additional funding totaling \$150,000.00 for institutions that found evidence of implementing co-requisites in mathematics and centered on scalable implementation of phase I planning. A total of five institutions applied, three of which received full funding while the remaining two received partial funding. Once phase I and phase II have completed the overarching goal is to interact with Subgroup One, collect information, develop a repository of resources, create learning communities and provide statewide technical assistance for co-requisites.

Dr. Moena and Dr. Tonge spoke about having Quantitative Reasoning (QR) regional meetings in the future and continuing to keep active learning alive through regional workshops. Dr. Compton mentioned that there is limited funding, but hoped for funding through the Strong Start to Finish grant. Dr. Davidson also mentioned utilizing Complete College America (CCA) for technical assistance or encouraging half-day seminars to train faculty at scheduled statewide mathematics meetings. Dr. Moena suggested reaching out to nonprofits for funding assistance. Dr. Findell

added statewide mathematics meeting such as Ohio section of the Mathematics Association of America (MAA), Ohio Association of Two-year Colleges (Ohio MATYC), and Ohio Council of Teachers of Mathematics (OCTM). Dr. Compton also spoke to the creation of a Knowledge Base tool for faculty to share information and have a dialog stream. Dr. Moena suggested bringing up these ideas at the next chairs/leads network meeting to confirm next steps to further QR.

Dr. Compton and Dr. Candice Grant of OATN provided an overview on the Ohio Guaranteed Transfer Pathways (OGTP). This initiative started with Social Behavioral Sciences & Human Services and Business clusters. The Social and Behavioral Sciences & Human Services has branched into sub-panels with clusters focusing regionally, while the Business cluster panel has decided to move forward statewide. The goal of transfer pathways is to provide students with a guided pathway from a two-year to a four-year program, without unnecessary duplication of coursework or institutional barriers, which will be able to help them stay on track toward degree completion. Social Work and Human Services subpanels have found that a large portion of community colleges offer applied degrees, which may equate to an extra semester beyond an associate of applied science degree, while the business cluster panel has outlined the first two-years and is in the process of having all institutions agree on the pathway. The next set of clusters in the fall will focus on STEM, Education, and Arts/Humanities/Design/History/Communication. Dr. Compton announced that at these cluster panel meetings, a mathematics representative will again be present to discuss the OMI, as well as disciplined faculty reps from each of the Ohio public institutions. She also reminded those in attendance that the OGTP initiative is supported by law. Dr. Grant spoke that she will be meeting panels regionally and invited mathematics representatives to talk about the mathematics piece at these regional meetings, as it would be a great way to connect with different disciplines. Dr. Tonge suggested outreach to mathematic chairs and provosts to keep them informed of these regional transfer meetings. Dr. Moena was curious on whether students would complete an extra semester of social work related courses, at the two-year or four-year institution to ease the transfer process. Dr. Grant spoke that this is dependent on financial aid and that OATN is working to answer this question. Dr. Compton chimed in that institutions such as University of Akron are playing creative roles and have suggested completing two and a half years at the two-year level, then completing a year and a half at the four-year institution.

#### **V. Planning of Fall Chairs/Leads Network Meeting**

Dr. Paula Compton opened up discussion for planning fall 2017 and spring 2018 meetings. Dr. Moena reminded the co-chairs that questions and materials should be sent in advance to attendees to prepare for the fall chairs/leads network meeting. All in attendance agreed that two chairs/leads network meetings are needed. At the fall meeting, discussion would focus around the current landscape or changes on

each campus, what mathematics chairs and communities need moving forward, what is working and what is not working, and review of qualitative and quantitative data from department heads, as well as breakout sessions on QR, multiple types of calculus, and possibly co-requisites. Dr. Compton also mentioned Dr. Fowler's idea of constructing a PowerPoint to capture talking points when speaking to other disciplines. At the spring chairs/leads network meeting, discussion should focus on a follow-up review on calculus. Chairs and leads would be welcome to bring a calculus professor to this meeting.

#### **VI. For the Good of the Order**

Dr. Compton asked if there was anything further for the good of the order. Ms. Blaney discussed an issue with Knowledgebase account access. When receiving a request for system access, the process is to confirm approval with institutional mathematics chairs. Recently an adjunct professor requested access; however, the faculty teaches courses at both public and private institutions. Dr. Compton mentioned a hold on granting access until discussing with co-chairs. She shared a possible solution to obtain a statement from ODHE's General Counsel which states that access to Knowledgebase is for teaching purposes, not for profit, and would need to be signed by the user in advance. Dr. Compton agreed that further discussion will be needed on this issue in future meetings. Dr. Compton also spoke about Fast Facts and asked the co-chairs if these are worth producing. Those in attendance agreed that these are worth producing as they help with presentations and documenting OMI's journey. The participants also reached a conclusion to reach out to those at the fall chairs and leads network meeting for insight on Knowledgebase access. Dr. Compton thanked the OMI Subgroup Co-Chairs for attending. With no further discussion, the meeting was adjourned at 2:00 p.m.