



Ohio Higher Education Mathematics Steering Committee – Meeting Minutes

October 04, 2013 10:00-1:30

Ohio Board of Regents B-004

This was the third meeting of the Ohio Higher Education Mathematics Steering Committee. Present were:

- Committee members: Linda Chamblin, Paddy Dowling, Joan Leitzel, Krista Maxson, Jeff McNeal, David Meel, Ricardo Moena, Rodney Null, Carl Stitz, Andrew Tonge (attended via telephone conference), Michelle Younker, and Jeff Zeager.
- Ex-officio members: Brian Roget, Mike Snider, Cathy Chudzinski
- Ohio Board of Regents staff: Carlos Bing, Paula Compton, Stephanie Davidson, Stephanie McCann, Brett Visger, Gayle Ashbridge, Hideo Tsuchida, Rebecca Watts
- Dana Center Staff: Philip Uri Treisman, Jenna Cullinane
- Guest: A. Bathi Kasturiarachi (substitute for Andrew Tonge)

I. Welcome and Introductions

Dr. Joan Leitzel welcomed Ms. Jenna Cullinane, expressing appreciation that Ms. Cullinane was able to attend the meeting after traveling from the University of Texas Austin. Participants in the room then introduced themselves.

II. Approval of September 13, 2013 Meeting Minutes

- Dr. Uri Treisman will email his requested changes.
- Page 8 needs to be corrected to “Dr. Zeager mentioned a pilot College Algebra class where a 5th contact hour has....”
- Dr. Paula Compton requested permission from the committee to post the meeting minutes on the website, which was approved by the committee.
- Dr. Leitzel asked for approval of the meeting minutes, and the group approved the minutes with the suggested edits.

III. Information Reports, College and Career Readiness Standards

Dr. Rebecca Watts clarified the process which yielded the current standards. The following are a number of points from this discussion:

- In the beginning, the legislation that prompted action was a result of high remediation rates around the state, and inconsistency into what placed a student in remedial courses was a concern.

- The House Bill called on the Presidents from 2- and 4-year institutions to create standards.
- Recommendations from faculty in both English/Language Arts and Mathematics were collected via working groups. Those groups then began the work of setting standards across those disciplines.
- Recommendations moved from the two panels to an overarching panel. The overarching panel made one change that was specific to the Mathematics score.
- The initial panel had recommended 24 on ACT as the standard for a student to be remediation free. The overarching panel then asked if that score of 24 was really required as [National Standards were 22](#). As such, the panel changed the recommendation from 24 to 22.
- In December 2012, the Presidents adopted this standard. This does not guarantee a student admission to an institution - it does, however, prevent them from automatic placement into remediation courses.
- Institutions can suggest that a student enter into a remedial course, but it is voluntary. Additionally, it does not guarantee placement into a particular course; it guarantees them placement into a credit bearing transferable course that would apply toward graduation.
- Students who score below 22 do not have to be remediated. They could be referred to some college level courses, or some college level courses with support. Ms. Cullinane suggested this is an area where the committee may want to make a recommendation.

IV. Actions Essential to Meeting the Charge

Comments about the Problem Template:

- Dr. Leitzel reviewed statement of the charge and asked for feedback from the group.
 - The charge was adopted.
 - The charge is: "To develop expectations and processes that result in each campus offering pathways in mathematics that yield (a) increased success for students in the study of mathematics, (b) a higher percentage of students completing degree programs, and (c) effective transferability of credits for students moving from one institution to another."
- The associated actions to do this work were also discussed (five areas of work – participants are going to break into groups and ask: will this work? can we do it? and if so, how do we do it?)
- Dr. Treisman stated: If you look over the last 20 years, there has been no meaningful change in the production of baccalaureate degrees in Mathematics. The construction of more degrees is not a trivial problem, and the work of this group is of significant importance to our departments.
 - As the committee progresses its work, each should think entrepreneurial and consider minors and trends in Mathematics. Also, the committee should think about the markets.
 - The effective transferability of credits – Ohio has a lot of transfer opportunities for students.

- Ohio can be the first state to focus on the content of courses moving from compliance to innovation in the field. Build on remediation-free standards and see if the committee can make more coherent recommendations.
- Dr. Leitzel discussed the template and how it was to be filled out.
 - After a small group discussion and report-out to the committee, each member should have a strong sense of the essential components Ohio should target. As homework, each committee member will complete the template for one of the essential components. Each committee member was asked to complete a file card with a rank order of his/her interest/preference on the essential components. All of the committee members including ex-officios will be assigned a number to work on. Ms. Cullinane will then complete the final version.
 - Ms. Cullinane advised the purpose of the template is to start with a common understanding of the problem and focus on what specifically the committee is trying to solve. The last two questions address the stakeholders. Finally, the committee will start to think about problems and strategies. The first two columns address what the group believes and then lingering questions are addressed. Dr. Stephanie McCann was present to comment on opportunities to start collecting data. The template is just to get the committee members thinking. There were no questions for Ms. Cullinane.
 - The committee's commitment to the provision of rigorous mathematics education must be explicit in the final report. Efforts to increase degree completion and improve transferability should not be misinterpreted as reducing quality or inflating grades.

V. Working Lunch

The committee broke into small groups for a working lunch. Drawing on discussion from the September meeting, committee leadership proposed 5 core components. Briefly, they include: (1) revisiting traditional entry-level mathematics courses and their alignment to programs of study, (2) reviewing transfer models and processes, (3) developing strategies for communicating about recommendations, (4) developing data metrics to assess effectiveness of courses, and (5) improving alignment with K-12. These components were discussed in small groups, and suggestions for their improvement were made. Preliminary ideas for addressing the problems were also shared. *See Components Essential in Meeting Charge for details.*

VI. Report Outs

Group 1: Dr. Ricardo Moena

The Committee should:

- Look at all existing gateway courses and suggest alternatives to gateway courses (i.e. quantitative reasoning course)
- Increase the number of courses which may be accepted into the Transfer Module

- Revise the entire set of guidelines and move toward learning outcomes
- Not impose anymore limitations to the number of hours in the Transfer Module
- Remove the prerequisite structure and let the college determine cut-off scores.
- Dr. Moena asked whether there are any data regarding the effect dual enrollment has on increasing student enrollment and degrees.
- Dr. McCann addressed some of the data that currently exist.
- “Are the students that are involved in dual enrollment already aspiring to College?”
- Dr. Moena stressed the importance of communication between high school teachers and colleges in the reality of expectations regarding dual enrollment. Dr. Moena will share draft notes.

Group 2: Ms. Michelle Younker:

- How are students selected for courses? Why do students successfully complete College Algebra and not move on?
- The courses are currently very “busy.” What are the broad themes of each course?
- How are faculty decisions impacting the students?
- Missing data consist of which courses are rejected due to prerequisite issues.
- There is an issue between completion rate and level of rigor in the course. May need a longitudinal study.
- Are there data on how transfer students perform once they actually do transfer to other institutions?
- The committee needs to focus on maintaining transferability across courses.
- A best practices sharing space would be helpful. Success stories would be nice.
 - Need to do a good job sharing information across groups.
- The group needs to allow for innovation and structure at the same time. Methods of collecting and analyzing data: items two and four are part of the same issue, so Group 2 suggested pulling them together.
- Did not see any need to eliminate any of the five essential components.
- Need to understand what dual enrollment means at the state level.
- Early Mathematics Placement Test (EMPT) – it has not been offered for quite a while, and the committee may want to revisit that test. It was an optional test for schools.
- Did note that nowhere in the essential items is there a messaging and marketing component on encouraging students to become mathematics majors.
- Need for communication among the steering committee members, but also from a broader perspective as well.

Dr. Stephanie Davidson: By December 31st there needs to be a plan from the Chancellor to the legislature on Dual Enrollment.

Group 3: Dr. Carl Stitz

- Don't forget about certificate and applied programs. What does college level mean for mathematics courses in these programs?
- How do these courses fit into the General Education model?
- Assessments need to be at the outcome level, not what is coming in.
- Most people on the OTM Panel do not have much time to work on changes and improvements to the OTM.
- Need better communication on the changes that occur.
- How do we assess impact on a terminal course?
- There is a disconnect between what faculty are told is in the Common Core and what the high school faculty think is in the Common Core. What will it mean? There needs to be a discussion between high school faculty and college faculty.

Dr. Compton sent around a file card, so the participants could sign up for the areas of the template they would like to work on.

V. List of Resource Materials

- Mr. Brian Roget shared a course in data analysis, quantitative reasoning, and elementary statistics and probability that some schools are starting to use as a fourth-year course. He is leaving some reading materials on mathematics practices for the steering committee members to look at and will get them back at the next meeting, as he had to leave early. These are developed at ODE and piloted in Ohio and North Carolina.
- Dr. Leitzel also brought case studies in quantitative reasoning. Teaching Assistants have difficulty teaching this way, but the outcome data are good.
- Ms. Cullinane suggested that the committee continues to build on the list of key resources that are informing the thinking. She walked through the various documents that are currently identified in the packet.

Vi. Reflections

Dr. Treisman shared reflections of the day:

- The steering committee needs to:
 - Clarify the gateway courses and consider how to build them into coherent programs of study. Students benefit from more structure. In addition, develop a core set of default structures to support students as “program-takers,” rather than “course-takers”.
 - Consider the essential mathematics skills all students need and how to embed those skills in a variety of courses, especially courses supporting majors that are not mathematics-intensive.
 - Acknowledge that there is no one-size-fits-all solution. Solutions will need to fit college missions and capacities.

- Think about the intended audience for the committee’s report (e.g., who are the administrative audiences, professional associations, and other departments we want to influence?)
- Consider key implementation activities to realize the group’s recommendations. Both bringing new stakeholders into conversations and creating new structures for communication may be parts of the strategy.
- Use data not only to inform the committee’s decisions/recommendations, but also to ask better questions and deepen the understanding of the problems to be addressed.
- “Shamelessly advocate for the field of mathematics.”

VII. Next Steps

Dr. Leitzel shared next steps:

- Each committee member will be receiving the template to respond to and the assignment number.
- The timeframe will also be included.
- Ms. Cullinane and Dr. Treisman will take the completed templates and craft a final consolidated version of the template.
- In November the committee will continue to use the information from the template to move toward recommendations.

Dr. Compton advised that January 10th is a Friday and January 11th is a Saturday, which will be the dates of the retreat.

- Dr. Compton briefly described a tentative agenda of the retreat. The morning of January 10th, mathematics department chairs from USO institutions would meet. If the steering committee has the recommendations by that date, OBOR could share the work with the chairs and then share the feedback with the steering committee in the afternoon that day during the retreat.
- Dr. Jeff Zeager pointed out the Lorain County Community College does not have a mathematics chairperson.

Mr. Visger shared that – HB 59 says each campus must submit a completion plan approved by their Board of Trustees to the OBOR by June 30th. On December 5th OBOR will be partnering with the Ohio Association of Community Colleges (OACC) and the Inter-University Council of Ohio (IUC) to discuss completion plans.

VIII. For the Good of the Order

Dr. Leitzel thanked the committee members for their time and attention to these matters. There being no further business for discussion, the third meeting of the Ohio Higher Education Mathematics Steering Committee was adjourned.