

29th Annual Mathematics Division Retreat
February 8– 10, 2016
Steven Breuer Conference Center, Malibu, CA

Present: Mike Allen, Michael Davis, Ashot Djrbashian, Kim Foong Chong, Narineh Frankian, Yvette Hassakoursian, David Hassett, Kathy Holmes, David Jones, Suzanne Lavertu, Larry Newberry, Carol Paxton, Lynn Pomeroy, Liz Russell, Sandra Romero, Charlotte Schulten, Bill Shamhart, Peter Stathis, Jeremy Talaoc, Pete Witt, Andrew Young.

Guests: David Viar, Michael Ritterbrown

First Session, February 8th, 2016, 1:00-3:00pm.

Special Presentation.

- 1. Assessment: GCC background and the Common Assessment Initiative.**
 - a. Over 30 years same math assessments at GCC
 - b. Common assessment on the horizon (couple years)?
 - c. Pilot phase now (not at GCC) in Spring '16 and Implementation at pilot CC's Fall '16
 - d. Feb. 26 meeting volunteers?
 - e. Assessment (not Placement) being built by faculty
- 2. Guest Presentation: Multiple Measures, Ken Sorey and John Hetts, Educational Results Partnership.**
 - a. Multiple measures required by law in CA (most CCCs use standardized tests only)
 - b. Icarus' lessons—don't fly too high (well known) and don't fly too low (not well known)
 - c. Our students must be challenged but not overwhelmed
 - d. Precision versus accuracy (systematic and random error)—predictive utility
 - e. Could it be the case that it's our placement tools needing remediation not our students?
 - i. HS GPA predictive ability for success much better than assessment tools now used
 - ii. Long Beach placement is highest of assessment test, last course taken, HS GPA
 - iii. LB went from 9% to 31% college level capacity (placement)
 - iv. College level course success rate for those placed by standardized test versus College level course success rate for those placed by other means
 - v. Promised pathway students have support like achievement coaches, priority reg.
 - vi. Cumulative HS GPA is best predictor of success
 - f. 41 pilot colleges
 - g. Lively discussion on whether or not softening of Int. Alg. Req. for Stats. is violating CA Academic Senate guidelines
 - h. All info presented available at <http://bit.ly/MMAPGCC> Suggested rules for placing into courses available at <http://bit.ly/MMAPRules>

Second Session, February 8th 3:10 – 4:00pm.

Student Success.

3. Approval of minutes of division meeting of December 2, 2014. *Pg. 1

- a. Minutes from November 3, 2016 and December 1, 2016 Math Division minutes were approved.

Motion to allow emeritus faculty to vote on division issues during this retreat. MSP

4. Division Chair Update

- a. Budget Update, *Pg. 4
 - i. Mike Allen gave a summary of state budget mentioning that Governor Brown favors restricted dollars over unrestricted. Will have to wait for final word.
- b. Enrollments, *Pg. 6
 - i. Liz called attention to data that the Math Division's FTES is up with higher numbers during the winter and usually take a slight dip in the spring semester. Mike suggested offering more second summer session classes to get back to where they were campus wide.
 - ii. Liz mentioned that Math's fill rates are high and consistently higher than across the college. Short session fill rates are high as well.
- c. Hiring Updates, announcements
 - i. We will be filling 2 FT full time faculty positions this fall. The process is underway. The paper screening has begun and the hiring process will conclude by April 1.
 - ii. Lauren's last day is Feb 19 and a temp will be starting on Feb 9 (tomorrow). If a permanent position is approved at the next budget meeting, then Liz can start the process for a permanent replacement.

5. Success Rate Analysis

- a. Math Success Report – Course Enrollments and Success Graphs. *Pg. 14
 - i. Discussion ensued. The group focused on the downward trend with success rates for Math 100, 102, and 110. Michael D. felt that the redesign (new Math 110, 110A, and 110B) will help to address this issue.
- b. Scorecard Remedial Progress *Pg. 31
 - i. The group discussed possible reasons for the decline in Remedial Progress rates. Liz was hopeful that recent programs will help to address this issue. David H. posed the question whether the downward trend might be a result of the common final exams. Peter suggested that increasing the number of Math 155 sections might be a factor in the trend. The implementation of Math 144 will help in addressing this concern by eliminating an exit point.

Two curriculum group meetings: Developmental and Calculus,. 4:00 – 4:45 PM.

Third Session, February 8th 7:00 – 8:15pm.

Thought Provoking...

- 6. Dave gave a demonstration of the free Desmos software**
- 7. Liz introduced the theme for the retreat: In Transition**
- 8. Suzanne led the group in an activity to get to know each other better.**

9. Yvette talked about Growth Mindset and let the group in an activity which we can use in our classroom.

Forth Session, February 9th 8:45 – 11:45am.

Sharing

10. Pedagogical and Technological Issues

- a. What are the pros/cons of having students take tests online? Take-home exams?
 - i. The group discussed using passwords and collecting work for the test. Kim suggested that if he were to give a take home test that it should be much harder. In addition, he mentioned that word problems work better for a take-home test.
- b. What can we do to combat an over reliance by some students on websites that not only provide help but solve their problems?
 - i. Bill has concerns that technology may be lessening students' willingness to be self-learners. The group showed interest in combining learning management systems along with more traditional paper and pencil assignments. Carol instructed her students to go to reputable sites to view lessons rather than just get the answer.
- c. In light of yesterday's presentation, what do you think about Multiple Measures?
 - i. The group seemed to be receptive to the idea of incorporating Multiple Measures as a second layer in our placement process. The group was interested in further investigating the idea. Peter suggested that this project would fit well with Student Equity or SSSP. Bill suggested that mindset might also play a role in the process. Kathy mentioned that it is important that the students know how their score so that the students do not have false expectations.

Motion to form a task force to create rules incorporating high school GPA and course history as a part of the initial placement. (Michal Davis/K. Foong-Chong) MSC

- d. Volunteers for the task force: Michael D, Peter, Bill, David H, Jeremy, Charlotte, Sandra

11. Other...

- a. Discussion of possibly lowering Math class seat loads (perhaps at 35). Some colleges have lower max seat loads in Math classes already. Previous pilot experiment on smaller class sizes showed higher success rates for classes of 20 or 30 than for 40 (consistent with wider research results).

Motion (Y. Hassakoursian/J. Talaoc): Take to Academic Affairs to reduce the seat load in all Math classes to 35. MSC

- b. It was agreed that we would get information regarding seat sizes at other CC's

12. Grants, Projects, Etc.

- a. Fast Track Algebra (Suzanne, Carol), *Pg. 35
 - i. Reported out continuing success of program.
- b. Accelerated Pathways for Non-STEM (Jeremy, Bill), *Pg. 36
 - i. "Astonishing" success of Math 144 reported (about three times the success rate, compared to traditional format for 155 and 145 combined)

- c. Student Equity Summer Bridge (Yvette, John)
 - i. The 2016 summer bridge program will offer Math 145 and Math 155 to separate cohorts in the second 5 weeks of summer. Classes will be offered M-Th to allow for field trips on F.
- d. Math Review Sessions (Mike, Sandra)
 - i. Participants that continued seemed to appreciate it, but significant attrition.
 - ii. Need to start earlier this semester (March 12) to get students through before priority reg.
- e. MDC Workshops (Michael, Alla), *Pg. 37
 - i. Presented participation data for past workshops.
 - ii. Requested people sign up for Spring workshops.
 - iii. Need much better promotion/marketing of workshops.
 - iv. Question: should we even continue to offer these workshops? Several faculty expressed appreciate for workshops and desire they continue.
 - v. Will be posting schedule of workshops in each Math classroom.
- f. Basic Skills At-Risk Intervention (Narineh), *Pg. 38
 - i. There are ongoing challenges with the Achievement Coach position; trying to get a second position. It is a student technician position but attracts counselors. HR says that the student interaction should not be done by a technician.
 - ii. The majority of students who withdrawal claimed personal/family issues.
 - iii. Instructors should sign a third attempt before student attends the workshop and obtains the Division Chair's signature.
- g. Adjunct Support (Liz, Peter)
 - i. Liz would like to continue the mentoring of new adjuncts. We have 6 new adjunct for the Spring. Peter, Charlotte, Michael, Suzanne, Alla, Kim, Sandra, John expressed interest in mentoring.
- h. Online Math Resources library (Michael)
 - i. Michael has redone the math division website and is adding math resources. He is also creating a college wide website for adjuncts.
- i. Math HS Collaborative (Narineh, Yvette)
 - i. Growth Mindset was presented by Miguel Powers at the January workshop.
 - ii. Math E tutors are needed (students at Math 110 or above).

Fifth Session, February 9th 1:00 – 3:00pm.

Down to business...

13. Math 101/120 (Int Alg) & Math 141/146 (El Alg) common final. (Michael, Yvette)

- a. Spring 15 exam means, course means and success rate – PT versus FT.*Pg. 10
 - i. The bottom 4-topics were discussed at the adjunct workshop in groups and then shared with all participants. Activities were developed in the groups.
- b. Fall 14 (handout) and Spring 15 item analysis? .*Pg. 10
 - i. Lack of support with our math Administrative Assistant changing.
- c. Other: Questions that go below the surface?
 - i. Mike shared pedagogical challenges in getting students to apply steps of logic.

- ii. Michael gave an adjunct workshop about writing a test question to assess what was taught.
- iii. Faculty working groups could focus on this including supporting activities.
- iv. Carol said that we want students to have strong mechanics in addition to acquiring deeper knowledge.
- v. It was agreed to have a workshop to discuss types of problems and get examples

14. Bill led the group in an outdoor teambuilding activity involving the Greek alphabet.

15. Scheduling Issues

- a. Liz pointed out that Math 110A in the fall is an example of how classes that incorporate a lab component will be scheduled. The lab component will show up as a separate line in the schedule of classes.
- b. Changes to the Fall 2016 schedule were highlighted: To accommodate the curricular changes in Math 100, 110A, 110, several sections of Math 100 were converted to Math 110A and more Math 110 sections are being offered. Another section of Math 130 is being offered; a section of Math 145 and Math 155 were converted to Math 144. A Math 119 section was converted to a Math 131. Various other adjustments were made.
- c. Liz pointed out that we are experiencing growth in the higher end. In Spring 2016, we added a second Math 108 course and converted the Math 107 into a large lecture. An additional section of Math 103 was added to the Fall 2016 schedule.*Pg. 44

16. The group then selected upper level and non-standard classes for Fall 2016.

- a. Liz will send out the schedule for full-timers to request the rest of their load. *Pg. 5

Two curriculum group meetings: Statistics and Pre-Calculus. 3:00 – 3:45 PM.

Retreat 2015 Slide Show & Video/Games 7:00 PM. – ???

Final Session, February 10th 9:00 – 11:30am.

Wrapping it up, looking toward the future . . .

17. Curriculum Group Reports

- a. Developmental (Jeremy, Yvette)
 - i. Assessed SLO's in M131 in probability and logarithms. Found satisfactory.

Motion: Amend requirement in M155 to be 75% or better and having algebra previously in order to petition into M141. (Jeremy, Larry) MSC

- b. Pre-Calculus (Michael)
 - i. Assessed SLO's in M100 in rational inequalities, including a matrix containing common errors. Major issue was, as expected, cross-multiplication.
 - ii. There will be a Math 112 boot camp on the Friday and Saturday of the first week of class. Students will attend 6 hours worth of sessions; Suzanne, Michael D, Alla, Sandra will be presenting the boot camp.

Motion to use Open Stacks College Algebra book for M100. (Michael, Larry) MSC

- c. Statistics (Charlotte)

- i. Section 5.5 removed from Statistics guidelines. No change to current course outline.
 - ii. New course combining M131 and M136 is being investigated.
- d. Calculus (Dave)
 - i. Did SLO's in M103 in limit derivatives (satisfactory) and areas (not satisfactory). Areas will be retested in the next cycle.
 - ii. Currently working on M 103/104 course outlines to reflect early transcendentals. Discussion ensued. Some expressed concerns regarding if this might affect articulation with local transfer institutions. Liz will ask Richard Cortez about this. It was suggested that we look at our local schools to determine if use early or late transcendentals.
 - iii. Discussion of Cengage's "MindTap" software. We will have Cengage out for lunch and MindTap demonstration. Charlotte voiced concerns about companies over promising and under delivering

18. What's New? What do you do?

- a. Teaching techniques
- b. Charlotte presented about her trip to Great Teachers; Suzanne added in her Great Teachers experiences
- c. Lynda.com discussed
- d. Michael and Suzanne discuss their Project Access experiences
- e. Suzanne showed study skills videos
- f. Michael discussed reading and reading quizzes, flipped classes
- g. Suzanne discussed having students do exam corrections
- h. Michael discusses requiring a notebook check for WebAssign classes

19. Liz thanked everyone for their participation in the retreat. Meeting adjourned.

*information/data sheet