

## Developmental Math Program Review 2017-18 Faculty Response

### Introduction

The role of the developmental math program is to prepare students to be successful in college level math courses. Per our mission, the program seeks to build confidence, promote learning skills, develop problem-solving skills, and teach mathematical concepts in a learner-centered environment.

The Program Review Evaluation Team Report was submitted by Dr. Sheryl Rushton, Dr. Linda Zientek, Dr. Debra Ward, and Janean Montgomery for their evaluation visit conducted during the Spring 2018 semester. In all, the reviewers listed 25 strengths, identified 13 challenges, and made 23 recommendations across the eight standards. For brevity, our response to the commendations (strengths) is limited to this statement: Overall, the report reflects the dedication the faculty have to provide a quality program for our students. The tone of the report is generally positive, particularly regarding how we addressed the concerns from the previous review. We appreciate the review committee recognizing our focus on student success.

We are pleased to address the specific recommendations and find many of them valuable as we further strengthen our program.

### Recommendation Standard A - Mission Statement

The review committee commended the clarity of our mission statement. They expressed a concern about the ability to measure “building confidence and promoting learning skills,” however, we can ask survey questions about confidence and learning skills.

#### **1. Continue to keep website updated with current course offerings.**

Response: We appreciate the recognition that the website is “clear and explicit.” We value good communication with our stakeholders – students, faculty/staff, and community – and see the website as the foundation of our communication plan. We have procedures in place to keep the website current.

### Recommendations Standard B – Curriculum

#### **1. Make evidence-based decisions by utilizing data prior to making revisions to courses.**

Response: The past 5 years have been filled with curriculum changes founded on research-based principles for effective mathematics teaching. We have used IR data reports to verify the effectiveness of our new courses in the early stages. Having completed multiple semesters of instruction in the new courses, we are now in a position to do further research to inform future changes.

#### **2. All changes to curriculum need to be communicated to full-time and adjunct faculty. In addition, adequate time for implementing curriculum changes needs to be provided. (*Review team suggestion: Faculty should be given no less than a weeks’ notice of any adoption of curriculum changes and/or updates.*)**

Response: We recognize the pace of change has been unusually swift, which has resulted in some challenges for faculty. While future changes are inevitable, the pace will be much more manageable and allow for improved communication to and preparation of faculty.

## Recommendation Standard C – Student Learning Outcomes and Assessment

**1. Too much emphasis is placed on the mid-term and final exams. Students in the Developmental Math program often have test anxiety and therefore the emphasis on the mid-term and final exams work against them. (*Review team suggests exploring other options to assess the mastery of mathematical concepts or students.*)**

Response: Part of the mission of Developmental Math is to prepare students for success in college level mathematics courses, in which the majority of the students' grades are based on tests. Therefore, we see the need for our students to have experience with multiple unit tests (not a single midterm exam) and a final exam. Because we are *developmental* math, we also see this as a time for students to develop academic skills. Therefore, we use multiple retakes to achieve mastery in the computer-based courses and test corrections to improve understanding in the paper-based courses. Faculty are adopting curriculum and pedagogy that teach students the importance of making and learning from mistakes, which combined with our testing procedures, has the potential to reduce test anxiety. The Pathway class did utilize group focus questions as alternative assessments for the first 2 years. We found the students did not learn the material using these focus problems. Instead, one or two people in the group did all the work. Often the students had a friend or relative help them do the problem and did not gain any better understanding of the concepts being taught. We also found that students were often just copying the papers completed by students during a previous semester. That said, we are willing to explore the literature on alternative forms of assessment in developmental math and consider other possibilities.

## Recommendations Standard D – Academic Advising

**1. The Institution should educate academic advisors on the importance of students taking math early in their college career. An anecdotal experience was shared that would indicate not all academic advisors are consistent in their advising practice. The DMP flier and the messages on the flier should be promoted. The messages state that “Students who take math their first semester are much more likely to graduate” and “students who take math their first semester are more successful in other college classes.”**

Response: We fully support this recommendation. While we cannot directly address inconsistencies in general academic advising, we work diligently to communicate regularly and clearly with all advisors through an email group and an annual meeting with advisors. We have shared these specific flier and other marketing materials with the advisors.

**2. At the institutional level, better communication should be encouraged between all university departments, programs, and support services regarding enrollment practices and services provided to students.**

Response: We fully support this institutional recommendation and continue to work closely with enrollment services, and others, such as the QL Task Force to improve communications. We can bring this recommendation to the QL Task Force for discussion and action.

## Recommendations Standard E – Faculty

**1. Institution should consider a tiered contract for Developmental Math Instructors. (*The review team suggests single-year contracts for four years, then advance to a two-year contract.*)**

Response: The faculty support any measure that provides an additional sense of job security. The dean has been trying to implement changes in contracts without success.

**2. DMP should implement a mentor program for adjunct faculty.**

Response: The faculty support this recommendation. Mentoring happens semi-formally. Faculty are mentored by course leads each time they teach a new course or type of course. A more structured and formalized mentoring program requires some study and may require additional funding.

**3. DMP should work on building a sense of community within their program. (*The review team suggests peer observations, socials, and encouraging collaboration amongst all instructors*).**

Response: The faculty support this recommendation. Peer observations were implemented during Spring 2018 semester with some success. We will build on this success and continue. Faculty are interested in generating an open-door classroom policy where all adjunct and contract faculty are welcome to visit any classroom. We held a picnic between Spring and Summer 2018 terms and look to have more socials. The program director regularly seeks input from adjuncts to inform departmental decision making. Adjunct faculty serve on course committees. We will continue to seek opportunities to build a greater sense of community because we understand this leads to better learning environments in our classrooms.

**4. DMP should do a cost-comparison to determine whether having instructors spend required work hours in the Hub is an efficient use of program funds. (*The review team suggests DMP instructors should not be required to regularly work in the Hub, unless they want to hold their office hours at the Hub. We feel this is a poor use of the program's resources, however, we recognize the possible need of these instructors in the Hub during high demand periods.*)**

Response: The faculty support this recommendation. There has been reluctance to leave the Hub due to a lack of confidence in peer tutoring. During Spring 2018 semester, this recommendation was discussed and faculty decided they needed to allow peer tutoring to stand on their own. Effective Fall 2018 faculty will not work in the Hub.

#### **Recommendations Standard F – Program Support**

**1. Tutoring services should recruit tutors from previous developmental math courses.**

**2. Tutoring services should train tutors to teach mathematics at the developmental math level.**

**3. Tutoring services should have tutors observe mathematics classes.**

Response: Our department does not have the authority to enact these recommendations. We will pass them on to tutoring services and offer our willingness to assist. There is some discussion about our faculty providing tutor training in the fall for REAL Math 1010 courses. We would like to see some kind of ongoing training of tutors specific to tutoring math rather than one-time course specific workshops.

**4. DMP should provide hard copy math resources in each tutor center, including syllabi for each course.**

Response: This is easily accomplished. We will discuss with the tutoring coordinators to determine what kind of resources would be most useful.

**5. DMP should provide tutors access to online courses (e.g. MyMathLab training courses).**

**Communication between DMP and program supports should improve at all levels.**

Response: Tutors have always had access to online courses. We are willing to explore additional means of improving communication with tutoring and support programs.

#### **Recommendations Standard G – Relationships with External Communities**

**1. Continue to foster relationships with local school districts.**

Response: Representatives from our program meet each summer with Concurrent Enrollment teachers. For the past two years we have worked closely with teachers from nearly every high school in three school districts for the purpose of providing a successful experience for concurrent enrollment students who want to graduate with university math credit. In addition to spending nearly 40 hours participating in professional developmental opportunities together, faculty have assisted them in grading tests and have spent time observing them in their schools. As a result of

our collaborations, it's our belief that local teachers now view our department as a trusted support and resource.

**2. Build a working relationship with the Math Department that will support the goals of both the DMP and the Math Department.**

Response: This past year we have had representatives from the two departments attend faculty meetings of the other department to share information between the two departments. This has been helpful in a small way, and we will continue this. We will seek more ways to build stronger positive relationships between the two departments.

**3. DMP should have a representative at Faculty Senate since they are their own group of instructors, not housed in any specific department.**

Response: It is probably not accurate to say Dev Math has no voice in Faculty Senate, as we have College of Science senate members who should be representing us. However, we have not availed ourselves of that resource. The faculty have not actively participated in the senate communications and processes in the past. One of our instructors was nominated as a College of Science representative for faculty senate in the most recent election. We will continue to forward names for consideration. In the meantime, we will make a greater effort to connect with the college senate members and communicate our unique needs and concerns to them.

**Recommendations Standard H – Program Summary**

**1. Create student interventions that would require students to utilize tutoring. (The review team suggests if students' grades fall below a certain percent – perhaps a 70% - they are required to go to tutoring.)**

Response: Tutoring services is working with us to pilot Structured Learning Assistance, which has a mandatory attendance policy for help sessions. As for mandatory use of the Hub (tutoring center), we will have to further explore this option. The faculty lack confidence in math tutoring, which limits their desire to require tutoring. The nature and quality of tutoring will be of great interest to our faculty, since the faculty will no longer be in the Hub starting Fall 2018.

**2. Provide instructors an incentive for training tutors.**

Response: It may not be necessary to incentivize faculty to help with tutor training. Faculty would welcome the opportunity to assist with training. The key to involving instructors in tutor training lies with the tutoring program. They have a firmly established tutor training program that seems rather inflexible about trying new ideas. There is some discussion about our faculty providing tutor training in the fall for REAL Math 1010 courses. We would like to see some kind of ongoing training of tutors specific to tutoring math rather than one-time course specific workshops. Faculty would welcome the opportunity to assist with training.

**3. Provide students with instructions and/or videos on the website to help with technology issues such as optimal browsers and settings for accessing Pearson programs.**

Response: Students who have technical difficulty with Pearson can get assistance from Ext. 7777. It may be necessary to improve messaging to students about where/how to get help. In the past year, 10-12 "How to..." videos have been created and added to the computer-based courses.

**4. Continue marketing efforts within community and with campus programs such as tutoring.**

Response: This is an ongoing effort and will continue.