Dean's Response to the Program Review
of WSU Mathematics Programs
June, 2018

First and foremost, I want to acknowledge and thank everyone who contributed to this program review. The Evaluation Team recommended by Chairperson Talaga completed a thorough review and analysis, and made many valuable recommendations. Likewise, Chairperson Talaga and the Mathematics faculty and staff compiled an informative self-study and also presented pertinent responses to the Evaluation Team Report.

I have reviewed all documents related to this Program Review, and in many areas, I agree with many of strengths of and challenges facing Mathematics pointed out by the Evaluation Team, and likewise, I found many of the their recommendations to be thoughtful, and appropriate. I also appreciated the thoughtful consideration of these recommendations by the Mathematics Department as well as their responses.

Having said this, I fundamentally agree with most of the recommendations and responses, except those noted below, where I express concerns or comments that may be pertinent:

Regarding Standard B – Curriculum, and Standard C – Student Learning Outcomes and Assessment:

The Evaluation Team noted that the program has done a good job of demonstrating that the curriculum, including the content of general education/service courses is the result of thoughtful curriculum planning and review. I do not fully agree with their assessment. While the department has made inroads in attempting to improve its curriculum, discussions within the QL Task Force demonstrate that much needs to be done in regards to better defining measureable expected student learning outcomes for lower level courses, including QL courses. The lack of well-defined and measurable expected learning outcomes for courses such as MATH 1030 and MATH 1040 continue to hamper the ability of faculty in Developmental Mathematics to best prepare students for success in QL. Moreover, the programmatic learning outcomes state in many cases that "…students are expected to have …. knowledge of" …this or that. But how is "knowledge" measured? Surely, these expected learning outcomes can and should be improved. As I noted in my comments for Developmental Mathematics: what seems essential throughout the Developmental Mathematics – QL – Calculus sequence is that *a "backwards design" curricular approach to reimagine courses in this sequence is essential to improve student success.* My hope is that such an approach can be realized in the near future, perhaps via assistance from the QL Task Force, which continues to meet, or perhaps as a recommendation from others downstream in the program review process.

Regarding Standards B – Curriculum, E – Faculty, and F – Resources:

In each of the areas noted above, the Evaluation Team made note of issues related to the perceived allocation of resources to help Mathematics fulfill its mission to the university. I note that in their comments regarding Standard E, the Evaluation Team noted that the student faculty ratio in Mathematics was most recently 29.53:1. However, the most recent data I have from Institutional Effectiveness indicates that the average student:faculty ratio in Mathematics over the past three years is 22.3:1, which only slightly exceeds the 22.2:1 average of the College of Science. Moreover, the assertion that the high workload negatively impacts the ability of faculty to work on research or participate in campus professional development activities also seems a bit of a stretch. Compared to other COS departments, Mathematics has an inordinately large and complex internal committee structure, which, if simplified, conceivably could generate more time for faculty to pursue scholarship, including HIEE for students. Likewise, while such activities have decreased in

the past several years, many Mathematics faculty continue to commit time to overload, online, and summer teaching activities in addition to their normal teaching, scholarship, and service duties. In contrast, highly productive programs and faculty in the COS tend to eschew such extra activities. It seems that individual choices become important in such cases. If Mathematics faculty were amenable to reducing their commitments to such extra teaching activities, it's conceivable that the College or Academic Affairs would entertain hiring new contract or tenure-track faculty to better meet the recommendations of the Evaluation Team. I also note here that a new instructor search was successfully completed recently, and that person will begin to help the department after July 1, 2018.

Having said all this, it is clear that Mathematics SCH has risen by 33% in the past five years, and that Gen Ed SCH has risen over 41% during the same period. Part of this increased demand is certainly related to the growth of programs in EAST, and that definitely needs to be recognized and accommodated as resources permit. I also agree that the institutional push to become more involved with Concurrent Enrollment courses has been difficult to accommodate by Mathematics, and has put an extra burden on faculty. However, that up-front investment has the potential to pay off with lowered workloads in GenEd QL courses in the future, thus freeing up faculty time. It's also clear that the Chairperson is often overwhelmed and has difficulty handing off duties to others as is more common in other COS departments. I note that past offers from the Dean's Office to provide reassigned time to incentivize faculty to help the chair were declined. Thus, perhaps simplifying the existing committee structure can help. Moreover, as noted above, Mathematics gained a new Instructor position for the 2018-19 academic year. How that person is able to help the department better utilize its existing resources and free up time for faculty to become more engaged in HIEE, scholarship, and shouldering some of the Chairperson's workload will be important to note, and has the potential to impact future arguments for additional resources. Finally, I noted that the Evaluation Team commented on the need for additional staff and the poor Departmental travel budget. Neither has been specifically requested from the College in past years, and with exception of the 2017-18 academic year, the Mathematics Department has closed the year with a budgetary surplus, while the Dean's Office has subsidized numerous travel and professional development activities by faculty. As such, this issue may require more detailed study.

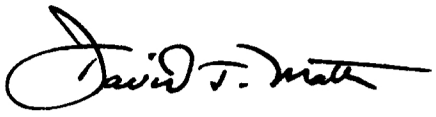
Other miscellaneous comments:

- Classroom space is currently being discussed on a college-wide level to address institutional interest in improving overall scheduling, accommodating the need for a digital literacy center in Lampros, and accommodating the needs of NUAMES on the Ogden Campus. The needs of Mathematics AND Developmental Mathematics are an integral part of these discussions.
- I agree that a better mission statement and strategic plan should be developed. The Strategic Plan presented to the Dean's Office in 2015, while a good start, was clearly not grounded in the reality in which Weber State currently functions. I am hopeful that involvement with the QL Task Force and the efforts of incoming Dean Easter-Pilcher can help Mathematics develop a more realistic Strategic Plan for the future. I also note that only one meeting of the Advisory Board has taken place and recommend convening this group at least once in each of Fall and Spring semesters. That group also could help develop a stronger and more realistic Strategic Plan for the program.
- I support the concept of assigning course coordinators to multi-section courses as recommended by the Evaluation Team. This will most likely require additional resources to provide reassigned time for these activities. However, I am convinced that overall student success will improve if consistency among multi-section courses is improved and maintained, especially among those that engage numerous adjuncts as instructors.

- It seems important to point out that little attention was given to the Developmental Mathematics program in the Mathematics Program Review. Given that the two programs really are "joined at the hip," and Developmental Mathematics supports the bulk of the QL effort of the Mathematics program, it seems imperative to point out that the most critical recommendation made to the Developmental Mathematics program was the need to "*Build a working relationship with the Math Department that will support the goals of both the DMP and the Math Department.*" In this regard, it seems reasonable to point out that it is in the best interest of the Mathematics Department to ensure that Developmental Mathematics continues to improve student success for students who move on to QL and beyond. Here, I also point out that curricular and pedagogical innovations made in Developmental Mathematics have, by some metrics provided in the Program Review dashboards, improved course completion student success by over 200% in the past five years. I hope that bridges can be built between departments so that both will thrive.

As I noted in my Developmental Mathematics response, it seems that mathematics at Weber State may be turning a corner, and I am happy to see that changes for the better seem to be occurring in the Mathematics programs. Collectively, I know that all faculty in the Mathematics Department are good people who are dedicated to providing the best education possible for our students. However, times change, and faculty must do so as well. As such, I encourage senior faculty to embrace the growth mindset concepts and pedagogies that have been so successful for Developmental Mathematics, and to periodically step aside and allow the next generation of faculty to take the lead in moving the department and its programs into the future. Having said that, thanks to all Mathematics faculty and staff for your dedication and good work.

With kindest regards,



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