

**Program Review: Department of Mathematics**  
**Dean's Response**  
**June 2021**

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I would like to thank the program evaluation team, Dr. Peter Alfeld (University of Utah), Dr. Derek Hein (Southern Utah University), Dr. Hugo Valle (Weber State University), and Dr. Violeta Vasilevska (Utah Valley University) for their efforts and critical assessment of the College of Science (COS) mathematics program at Weber State University (WSU). I would also like to acknowledge Dr. Sandra Fital-Akelbek (Department Chair) and the faculty members in the Department of Mathematics for their thorough self-study and their thoughtful response to the review team's report.

I have thoroughly reviewed the departmental self-study, the program review team's report and the response from the Department of Mathematics to the review team's report. The review team highlighted the exceptional aspects of the mathematics program and also delineated a few areas of concern. The dean's response provides commentary on observations made by the program evaluation team as well as the mathematics faculty response. The dean's response follows the organizational structure used by the program evaluation team in the body of their program review report.

***Program Strengths***

The review team praised the department's engagement with interdisciplinary programs within the College of Science (COS). I agree and appreciate that the mathematics program is a collaborative player in our new environmental sciences degree. As the review team did, I also commend the math department chair and the faculty for their willingness to accommodate computer science and engineering students by adapting their applied math courses to address the needs of these students. The chair has demonstrated remarkable flexibility in adapting these courses (including the dates and times of course offerings) to fit the needs of external programs. The team commends the COS mathematics majors advisor, Matt Ondrus and notes that the Weber State math students expressed that they are receiving appropriate course placement and advising. Students also commented on the responsiveness of faculty especially in responding to emails. The review team commented that relationships among faculty within the department were strong and that faculty within different academic areas (mathematics education, pure mathematics etc.) expressed appreciation for each other. I agree with this observation and commend the department for this level of collegiality. The review team also commented that the "expectation of one publication per year for each faculty member is commendable if it can be met." This is an incorrect observation. The faculty across the COS follow the new COS tenure documents passed in spring 2021 where the requirement is not one publication per year. The review team noted that the Chair, Sandra Fital-Akelbek and the dean are universally appreciated and that the chair has facilitated improvements in the relationships with not only the Developmental math program, but with other colleges across the university. I

could not agree more with their assessment of the chair! Sandra has been instrumental in improving the status of the math department (across Weber State University) through her communication and willingness to be flexible in responding to the needs of other colleges/departments.

### ***Program Challenges and Departmental Response***

The team noted several departmental challenges, some of which are tied to the open enrollment status of the university, notably that many students arrive on campus unprepared academically. The review team and the faculty were especially concerned about the low pass rate in pre-calculus (67%). This is an issue that the department intends to assess further and they will implement solutions as appropriate. The review team also noted that Concurrent Enrollment is a burden to the faculty in mathematics. The department notes that they had more than 3000 students enrolled in CE math (Math 1010, 1030, and 1050) and were engaged with and supported 50 CE teachers in 2019-2020. Currently, 6 faculty are working with CE in addition to the CE program coordinator. The program is funded through 2022 by a Utah State grant, but if the program is to continue, it will need to be funded by the university after 2022. Another concern raised by the review team was that students complained about the lack of research opportunities. Like other faculty involved in COS departmental program reviews, the faculty in mathematics feel very stretched. The faculty say they have no time to take on extra projects even for extra pay. This may be a significant portion of the reason that undergraduates in mathematics feel that there are not enough research opportunities. The faculty simply do not have the time to take on any additional tasks, including the mentoring and time it takes to support undergraduate research. The 12 x 12 teaching load for faculty across the WSU campus (with the exception of the Goddard School of Business), certainly precludes many of these extra efforts for many faculty. The review team began to make the case in this section for two additional faculty lines in mathematics, specifically a line to support the ever increasing numbers of engineering students who need upper level mathematics courses and a line to support the growth in the statistics program. The dean agrees and is fully in support of these two new lines in mathematics. It should be noted that the entire COS leadership team (department chairs, assoc. dean and dean) is also fully supportive. These two faculty lines emerged as two of our top three new faculty line priorities during our COS leadership team strategic planning process in May of 2021.

### ***Recommendations for Change***

**Create more opportunities for student research:** This issue has been discussed above.

**Hire a dedicated advisor for the Department:** The dean agrees with the review team that additional advising help is needed. The dean also agrees with the department chair that the lack of a QL advisor puts a significant burden on the chair of the Department of Mathematics, the administrative assistant, and several faculty members. The chair has made a very cogent argument for the need to hire a QL advisor and I support her arguments. I would also note that QL as a university – wide program affects students across all departments at WSU. Resources to help support QL should be provided (and indeed generally have been provided) at the

university level. I support the request that this university-level support now include a QL advisor who would be housed in the Department of Mathematics.

**Hire more faculty:** This issue has been discussed above.

**Create more support for online teachers:** The department provided several online/virtual training sessions for faculty and adjuncts and the Teaching and Learning Forum also has provided several workshops and training sessions for faculty across the campus. The department intends to hold additional training sessions if necessary as we move into fall term. The dean commends the department for their proactive response to the pandemic.

**Administrative support for the department should be increased:** This recommendation is captured in the request for a QL advisor.

**Resources should be provided to hire more faculty members to support the increasing enrollments in engineering and statistics:** This has been addressed above.

***Additional Recommendations and Comments:***

These have been dealt with in the sections above.

**Pressures on tenure-track faculty and the sustainability of the current workload model:** *“Our overall impression of the Weber State Math Department was that of a harmonious, engaged, and effective community of professionals that, however, appears to be stretched too thin in its many activities and objectives.”* The review team was clearly impressed by the work of the tenure-track faculty members in mathematics, but felt that the faculty were “stretched too thin”. I agree that this is a significant concern across the COS (every external review team of every program in the COS has raised this as an issue). The COS leadership team has addressed this issue in a couple of ways. I have appointed (on special assignment), Dr. Laine Berghout, chair of the Department of Chemistry and Biochemistry to be a workload “guide” for all of the tenure-track faculty in the COS and to be a liaison with the Office of Sponsored Projects as a step towards mitigating this issue. The academic leadership team has also assessed and implemented equitable alternatives to the current workload model.

In summary, I am impressed with the innovative ways in which the Department of Mathematics under the leadership of the Chair, Dr. Sandra Fital-Akelbek responded to the pandemic and has increased their collaborative efforts across the campus. I also want to express appreciation for the ways in which the department has been a true collaborative player with the COS itself. I look forward to the many future contributions that this department will make, not only to the COS, but to Weber State University.