In a meeting on October 29th, 2010, the Undergraduate Council (UGC) reviewed and discussed the Mathematical Sciences (MAT) Program Review submitted by the faculty of the MAT department. The UGC also reviewed letters from the Dean and the Curriculum Committee of the College of Arts and Sciences (CLAS). On December 10, 2010 the UGC met for a question and answer session with Dr. Chung Hsien Sung, Chair of the Mathematical Sciences Department. This memo is based on the program review, supporting letters and our meeting with Dr. Sung.

The Mathematical Sciences Department has provided students an educational environment where students can acquire an appreciation of the discipline of mathematics and a practical preparation for career goals. The department has a well-developed entrance assessment that helps the department in advising.

All core courses and elective courses are offered online providing flexibility to students. While the transition from an on-ground to an online program has helped MAT with an increase in enrollment and number of majors it is affecting their ability to interact with students (especially freshman) who may not be as ready to tackle required MAT courses online. The department also has a relatively low graduation rate given the notable increase in the number of majors.

The course clusters offered by the MAT program compare well with other Illinois institutions. It is worth noting that the MAT program is able to offer its degree with relatively meager resources. The program has well defined objectives and graduates with a MAT degree go on to productive careers in public and private sectors such as teaching, insurance, management as well as graduate studies in mathematics. There has been a significant turnaround in the enrollment and the number of MAT majors since the program moved to an online mode of delivery. The MAT program has also made significant contributions to supporting the institutional transition with General Education and remedial offerings.

It is important that the department be able to balance their number and modes of offerings with all the other requirements that are expected from MAT. The UGC does not believe this can be done with the current faculty load. To ensure quality and retain both faculty and students we suggest that faculty governance seriously consider reducing the Math Department’s general education obligations to three hours for incoming freshman. This complies with IAI guidelines for the general education core curriculum and, we believe, would help the Math Department better serve its students.

Furthermore, we agree with the CLAS Curriculum Committee assessment that the Math department needs an additional faculty for increasing instructor face-time especially with freshman
students; distributing teaching loads in a manner that allows junior faculty to pursue the necessary research for renewal and tenure, and to militate against possible decline in course quality through the inevitable increasing course caps. It appears that senior faculty members have been more successful in their professional development while the heavy load on the junior faculty seems to have restricted their professional development.

Recommendations

- Investigate the causes of the low graduation rate and develop a plan to address this issue that includes feedback from students and faculty.
- Develop a more robust exit assessment plan that does not rely exclusively on grades from specific courses. Implementation of this plan should be documented in the mid-cycle assessment report to CASL.
- Continue to strengthen the remedial program, which includes all 09X courses and MAT101, to insure the retention and success of underprepared students. Given the significant role of remedial courses in retention, the department should pursue centralizing the services related to those courses within the math department. Allocation of institutional resources towards this initiative will be a strategic investment to promote retention.
- Given the enrollment and productivity of the Math Department, the department should continue to focus on its undergraduate offerings.

CC:  
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