



CALIFORNIA STATE UNIVERSITY, FULLERTON


Office of the Dean

College of Natural Sciences and Mathematics

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TO: Su Swarat, Director of Assessment and Educational Effectiveness

FROM: Marie Johnson, Dean 
College of Natural Sciences and Mathematics

SUBJECT: Dean's Evaluation: Department of Mathematics Program Performance Review

The Department of Mathematics conducted a Program Performance Review (PPR) in AY 2019-2020; the department's self-study, the external PPR committee report, and the Chair's response to the external review are attached to this document.

The PPR included a comprehensive review of the department's current standing with respect to programs, students, faculty, and resources as well as an outline of long-term goals. The external review committee was comprised of four highly qualified individuals representing diverse viewpoints relevant to the Department's mission and goals. The review committee included one member from another department in the College of Natural Sciences and Mathematics (Josh Smith, Physics, CSU Fullerton); one member with expertise in research and research culture from another office at Cal State Fullerton (Binod Tiwari, Associate Vice President, Office of Research and Sponsored Projects, CSU Fullerton); one faculty member and chair from a sister CSU (Matthew Jones, Mathematics, CSU Dominguez Hills); and one faculty member from a local community college (Dana Clahane, Mathematics, Fullerton College).

Commendations

The review committee identified six program strengths to include undergraduate research, RTP process and procedures, the Statistics program, department collegiality, the department's response to EO 1110, and the strength of recent hires. These are all areas in which Math has invested heavily and thus this recognition is especially encouraging. In particular, the faculty's leadership and vision on mathematics curricular changes necessitated by EO 1110 under very tight timelines was exceptional. The department prioritizes undergraduate research, many faculty members serve as dedicated research mentors, and the quality and quantity of publications with undergraduate co-authors reflects this deep commitment. The Statistics program is growing rapidly and has produced an impressive number of graduates gainfully employed at all levels of local, regional, and national companies.

Issues for improvement

Class size. In the PPR, it is noted that the mean class size in fall 2017 was 30.67 and in fall 2018 was 32.76 (page 4). The review committee noted faculty discouragement with this trend citing erosion of the faculty-student bond and increased faculty workload. The increase in class size was an effort to be financially responsible. In AY 17-18, the department was 13% over the part time faculty budget; with the increased class size in AY 18-19, the department was 9% over the part time faculty budget.

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Future hiring. Hiring challenges, particularly in the fields of statistics and applied math, were noted. These challenges include low CSUF salaries compounded by the high cost of living in Orange County and were exacerbated by the concurrent switch to CHRS, the new CSU-wide HR interface. The review committee is especially concerned about the long-term growth and success of the Statistics program given back to back years of failed searches despite extending offers to multiple candidates.

Shared governance. The committee notes that the Math Tutoring Center was “moved and centralized with a campus tutoring center”. To clarify, the Math Tutoring Center was moved and centralized with the existing NSM (not campus) tutoring center located in our Student Success Center. This reorganization was done to alleviate the budget responsibility from Math (the Math tutors are now paid by the dean’s office instead of the Math department), to collocate all NSM tutoring services to make scheduling easier for students (tutors often tutor multiple subjects), and to ensure all tutors receive common training and supervision by our NSM Assistant Dean. The former math tutoring center was renovated into an additional active learning classroom but the downside was the location of graduate TAs in interior space accessible only through the new classroom. This lack of access highlights on-going issues with MH and the urgent need for extensive renovations.

Graduate application processes. Graduate applications have not transferred smoothly from the graduate admissions office to the department. These delays have resulted in loss of students and created additional work for faculty.

Department staff. The department is authorized four front office staff members but has experienced rapid personnel turn over and difficulty filling all four positions. The three current staff members are handling an enormous volume of work.

Recommendations

The committee recommends a department review regarding appropriate class size that balances pedagogical ideals with practical budgetary matters. At the current level of funding, these discussions need to consider tradeoffs between class size, faculty workload, availability of graders, assign time for scheduling, etc. As Dr. Agnew notes in his response to the review committee’s report, NSM has committed to a college-wide common budget report to track how each department (and the dean’s office) spends money. Gathering these data is crucial to informing future college-level budget discussions. Thoughtful conversation is also warranted regarding how to increase the likelihood of successful hires in the high demand fields (statistics, computational applied math, and actuarial science). Suggestions include screening metrics to identify candidates who want what we have to offer, advising candidates of the potential salary range before inviting them to campus, increasing startup offers, and considering initial salary ranges within the context of recent revisions to the California Fair Labor Standards Act. The committee’s final recommendation concerns communication processes and procedures between different levels of the university. Communication at a school of our size is an on-going challenge, and an area we must constantly review and course correct.

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