



CALIFORNIA STATE UNIVERSITY, FULLERTON

Office of the Dean

College of Natural Sciences and Mathematics

P.O. Box 6850, Fullerton, CA 92834-6850 / T 657-278-2638 / F 657-278-5390

MEMORANDUM

TO: Gerald Patton, Director
Assessment and Educational Effectiveness

DATE: 11 May 2011

FROM: Robert A. Koch, Acting Dean
College of Natural Sciences and Mathematics

SUBJECT: Program Performance Review—Department of Mathematics

The Program Performance Review (PPR) self-study report was thorough and thoughtful. It shows a department committed to excellence. And, the external committee report commended a department with "...a strong and shared commitment to...excellent learning, research and advisement...". This committee also made several suggestions for areas that require further attention.

Here, based on the self-study report, the external committee report, and the department response to the latter, I provide comments on the PPR.

Overall Comments

The Department is strong and vibrant, and includes faculty and staff members who care about the quality of their programs. Faculty members from each concentration are passionate about their subdiscipline and its value to the math majors and the larger discipline. The department offers curricula that broadly engage students and there is strong demand by students for these courses and the degree programs they compose. The department has been well managed and is strong fiscally and operationally.

Faculty Hiring Plan

The external committee report and department response both focus attention on the balance between filled vs. unfilled faculty positions noting percentages that should be targeted. While targeting a specific occupancy percentage is an important consideration, one which will depend on future strategies to deploy temporary faculty in remediation courses, it is only a driving force to act but not a defined plan by which to act. A plan that calls for a one-for-one replacement process is no longer considered adequate, but instead I strongly recommend a strategy developed in the context of: a) evidence-based (e.g. student and employer demand) long-term goals for strengthening undergraduate and graduate programs; b) developing strength in specified research areas; and, c) supporting the goal of the College to develop areas of excellence via interdisciplinary collaborations.

THE CALIFORNIA STATE UNIVERSITY

Collegiality and Faculty Communications Concerns

Collegiality and communication issues were addressed in the external reviewer report and in the departmental response. The external reviewers recommended that a protocol for raising concerns be created, they noted that faculty felt that they did not know all members of the department, and they commented that full-time lecturers felt less appreciated than in the past. I recommend that: a) the department establish two types of faculty meetings where the agendas focus on issues relevant to full-time faculty or part-time faculty (although representatives from both groups should be welcome to attend either meeting if there are items of interest); b) both forums openly discuss the issues of communication and collegiality and recommend avenues to address the external reviewers' concerns; and c) periodic social events be established where faculty can get to know each other better.

Retention, Tenure & Promotion Issues.

The process of retention/tenure/promotion (RTP) should be considered as the continuation of the hiring plan. Hiring without successful RTP leaves the department ill-prepared to accomplish its mission and is unfair to prospective new hires. It is clear from the PPR process (and from my experience with the faculty RTP process) that the department personnel document (DPD) requires revision. The modification of the DPD that has already been initiated is an excellent sign of the department's commitment to solving this problem. But, it is also very clear that the revision process must seriously and collegially consider input from all faculty stakeholders—I think this will improve collegiality in the department as well. Expectations must be realistic and supportive of the goals of the entire department in the two primary areas of performance, teaching and research.

Additionally, I would urge a concerted department-wide effort to increase the importance of engaging undergraduates in research. I think the inclusion of specific DPD criteria to that end could lend important support to this effort.

Developing New Instructional Modalities

I support the plan for arriving at an appropriate balance of online and face-to-face instruction. This includes a plan to offer many of the MS in Statistics courses online. However, there was no mention of learning about and embracing best practices in developing and offering online courses and programs. Based on the current status of online courses in the department, it is not clear that the department has taken advantage of resources readily available on campus (e.g. the Faculty Development Center 'OASIS', the College of Education and Science Education expertise, etc.) to achieve best practices. I recommend that the department make a stronger effort to learn and adopt best practices for online curricula and offer online courses that take full advantage of the strengths of the online instructional modality.

Curriculum-Focus Issues

The curriculum maps in the self-study report provide an excellent guide to upgrading curriculum in each concentration and changes based on that analysis should be pursued as planned and commented upon by the external review committee (see student learning objective recommendations).

A point that is missing, in my opinion, from all three documents is the focus of the student learning objectives (SLO). It is clear from a variety of sources that SLOs for selected courses are not as focused on the needs of the clientele as they are on the academic goals of the discipline. By that statement, I mean that, as academicians, many instructors tend to focus on educating mathematicians and not functional engineers, for example. Yet, in many classes, the vast majority of students are interested in applying mathematics rather than becoming mathematicians. This means that non-math majors are not receiving the functional preparation that they deserve and that instructors who focus on applications at the expense of theory, for example, may not be seen as meeting the SLOs needed by math majors. These considerations are not trivial for either math or non-math major and deserve careful analysis. The result may be that different approaches may be required in some classes.

The development of a new graduate program in statistics is a sound decision based on solid data. I look forward to seeing this plan fully implemented.

I strongly support the expansion of the Supplemental Instruction program and will work with the department to make that happen.

Department Space Considerations

The total space allocation in square feet is probably sufficient to satisfy the needs of the Department's needs. The problem is really distribution and condition of that space. These problems will not be fully resolved until McCarthy Hall is renovated. In the meantime, the Department should continue to use all resources available to it to make the spaces it occupies as functional as possible. The goal to enlarge the department office will eliminate three faculty offices but it was not clear how the department plans to redistribute these faculty offices.

Resource Issues

Issues of OE&E and staffing as noted in one or more of the relevant documents are not directly within the department's power to resolve. The OE&E problem resulted from previous managerial decisions and a remedy for the underlying issues will depend on a restructuring of the budget philosophy at the division and university levels. The solution to the staffing problem also depends on changes to Division allocation practices.